ISSUE	DATE	DETAILS OF CHANGE	CHANGED BY
1	04/07/01	ORIGINAL ISSUE	-
2	21/11/02	REVISED TABLES	PWD
2a	17/12/03	ENVIRONMENT INFORMATION, BATTERY TYPE FUSE RATINGS & CABLE TYPE	PWD

 Copyright Protec Fire Detection PLC

INTRODUCTION 3

1.1 THE 6300 SYSTEM 3
1.2 '6000 SERIES' LOOP 3
1.2.1 LOOP SHORT CIRCUIT OR LOOP INTERRUPTION *4*
1.2.2 DELAYS TO OUTPUTS *4*
1.2.3 DOUBLE ADDRESSING *4*

CABLING 5

2.1 POWER SUPPLY CABLING (REMOTE CHARGER ONLY) 5
2.2 NETWORK / SERIAL CABLING (RS485) 5
2.3 LOOP CABLING 6
2.3.1 GUIDE TO LOOP CABLE CONDUCTOR SIZES (mm^2) *6*
2.4 ALARM CABLING 7
TABLE 1 - CABLING, NUMBER OF CORES 7

CURRENT CONSUMPTION 8

3.1 PANEL CURRENT 8
3.2 LOOP CURRENT 8
TABLE 2 – ADDRESSABLE LOOP EQUIPMENT CURRENT DETAILS 9
TABLE 3 – ADDRESSABLE LOOP EQUIPMENT WITH AUXILIARY SUPPLY 10
CURRENT DETAILS 10
TABLE 4 – NON-ADDRESSABLE LOOP EQUIPMENT CURRENT DETAILS 10

INSTALLATION PROCEDURE 11

4.1 CONTROL PANEL 11
4.2 FIELD EQUIPMENT 12

CABLE TEST 13

CONNECTION 14

6.1 CONTROL EQUIPMENT 14
6.2 FIELD EQUIPMENT 14
6.3 ALARM CIRCUITS 14
6.4 FIRE STATION OUTPUT 14

COMMISSIONING REQUIREMENTS 15

6300 SPECIFICATION 16

APPENDIX A 17

 Copyright Protec Fire Detection PLC

INTRODUCTION

This document describes the methods to be employed when installing and connecting equipment associated with the PROTEC 6300 FIRE ALARM CONTROL PANEL. The 6300 panel is produced with 1, 2 or 4 loops and this manual is suitable for all versions.

1.1 THE 6300 SYSTEM

(REFER TO PID 203 – 6300 Example System Diagram)

Each addressable loop device has a unique Serial Number. The 6300 panel communicates with each device by this Serial Number, and the device replies with an analogue value. This analogue value is interpreted by the panel to determine the state of the device. The panel is therefore able to track accurately any changes in device reply values and initiate any necessary actions.

The 6300 panel can drive up to 4 loops, each containing a maximum of 191 devices. No more than 512 detectors and manual call points, spread across all four loops, may be fitted in order to comply with En54. Each device can actuate an on-site-programmable set of outputs. 8 internal outputs are available (4 monitored, 2 non monitored changeover contacts, a monitored 24V fire station output and a non-monitored fault changeover contact). It is also possible to have an output on any address point using ZONE/ALARM interface units and 16 Way I/O Boards.

It is possible to network up to 31 panels/repeaters. Networked panels/repeaters use a separate network card mounted on top of the terminal board. They are connected together using an RS485 loop (refer to PID 194).

If networking is not used then a 4 core communication link (2 data + 2 power) can be used to provide an RS485 serial link to a maximum of 4 repeat panels.

1.2 '6000 SERIES' LOOP

Each 6300 has the capability to communicate with Protec '6000 Series' loops.

Each addressable loop device has a unique Serial Number. The 6300 panel communicates with each device by this Serial Number and the device replies with an analogue value. This analogue value is interpreted by the panel to determine the state of the device. The panel is therefore able to track accurately any changes in device reply values and initiate any necessary actions.

The installer must mark up on the 'as fit' drawings the panel number (if more than one), loop number and address of each device. This information will be required in section 6.2.

 Copyright Protec Fire Detection PLC

1.2.1 LOOP SHORT CIRCUIT OR LOOP INTERRUPTION

En54 part 2, clause 12.5.2 states that it must not be possible to have a short circuit or interruption in a loop that prevents the indication of a fire alarm from more than 32 fire detectors and/or manual call points. To comply with this instruction, the installer must fit at least one isolator per 32 detectors and/or manual call points. The 6000 series loop has been designed with this in mind and so all addressable sounder bases, 6000/MICCO and 6000/MCP devices have a built-in isolator. If further isolators are required then loop isolator bases and loop isolation units are available (see table 4).

1.2.2 DELAYS TO OUTPUTS

The 6300 panel can be programmed to delay the outputs. En54 part 2, clause 7.11d states that it must be possible to override the delays and immediately action the delayed outputs at access level one. Since access level one occurs when the outer panel door is locked then if delays are to be used this clause can be met in several ways. The installer must check with the system designer how this is to be implemented because option (3) will affect the installation.

1. No delays are programmed for manual call points.
2. System programming permits a second activation to cancel delays and immediately activate outputs thus allowing any manual call point to be pressed upon confirmation of a fire.
3. Programming at least one manual call point to activate all delayed outputs. This should be placed adjacent to each panel and its purpose clearly labelled.

1.2.3 DOUBLE ADDRESSING

‘Double Addressing’, where a detection device and a sounder are assigned to the same address, is not supported by the 6300 panel.

 Copyright Protec Fire Detection PLC

CABLING

All external wiring associated with the system must conform to the current I.E.E Regulations and cabling must conform to the relevant BS specifications. ECA recommended Cable Separation for Electromagnetic Compatibility in Buildings, must be followed.

All cabling must be fully phased (Identify and mark ends of cables).

Although no connections are to be made to the 6300 panel until the commissioning stage it is important that cables are left long enough to connect directly to the relevant terminals. To ensure that cable tails are left with sufficient length all cable tails must be a minimum of 500mm. Locate the termination positions using Product Information Drawings: -

PID 201 - 6300 TERMINAL BOARD CONNECTIONS
PID 202 - 6300 REPEAT TERMINAL BOARD CONNECTIONS

2.1 POWER SUPPLY CABLING (REMOTE CHARGER ONLY)

If the 6300 panel has an external charger then it will require two separate +24V supplies. This is a requirement of En54 part 4 clause 6.4. These two supplies must not be wired in the same fire rated cable. In addition there is a fault signal 'SF' from the charger to the panel and a charger inhibit signal 'CI' from the panel to the charger. These two signals can be combined with one of the +24V supplies into a 4-core fire rated cable.

The maximum length of cable between the charger and the 6300 panel will depend upon the volt drop along the cable. No more than 3A must be supplied to a panel and no more than two panels must be fed from the same charger.

2.2 NETWORK / SERIAL CABLING (RS485)

A 6300 panel requires the RS485 network to be wired as a loop. This is because the RS485 network is wired as a loop in order to continue to indicate a fire alarm from any device on the system should a single break or short circuit occur in one of the RS485 circuits.

The maximum length of cable between any two 6300 panels on the RS485 network is 1km using a minimum standard of 1.5mm^2 fire rated cable. The maximum length of the whole RS485 network loop is 5km.

The maximum length of cable from the 6300 panel to all of the RS485 serial repeat panels is 1km using a minimum standard of 1.5mm^2 fire rated cable.

In countries where local standards permit, the network can be wired in 'Twin Figure 8' cable but the cable length will have to be reduced in accordance with the lower conductor size.

EACH OF THE RS485 CIRCUITS MUST BE WIRED IN A SEPARATE PAIR. WHEN THE CABLE HAS A SCREEN THEN THE SCREEN MUST BE EARTHED AND CONTINUOUS OVER THE CABLE RUN.

 Copyright Protec Fire Detection PLC

2.3 LOOP CABLING

The main consideration for the loop cable is the loop length. This length must include all sub-loops and spurs. For example, a loop of 800m with three spurs of 150m must be considered as being 1250m in length.

Notes :-

1. The loop cabling must be wired in fire rated cable. The minimum conductor size is shown in the tables of section 2.3.1. In countries where local standards permit, the loops can be wired in 'Twin Figure 8' cable but the loop length and load will have to be reduced in accordance with the lower conductor size.
2. Maximum loop resistance = 16Ω per conductor.
3. It is assumed that devices are evenly spread on the loop. If a large load, eg a number of sounders, is located at the end of the loop then the volt drop along the cable must be calculated to ensure that the input voltage to the loop devices remains within the range of 16 to 30V (peak).

Each address point must be numbered. Sequential address allocation of devices on the loops is not necessary with a 6300 system but it may prove advantageous for fault finding.

EACH OF THE LOOPS MUST BE WIRED IN A SEPARATE PAIR. WHEN THE CABLE HAS A SCREEN THEN THE SCREEN MUST BE EARTHED AND CONTINUOUS OVER THE CABLE RUN.

2.3.1 GUIDE TO LOOP CABLE CONDUCTOR SIZES (mm^2)

		Loop Length (metres)										
		500	550	600	650	700	750	800	850	900	950	1000
Total Loop Load in Alarm (mA)	50	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	100	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	150	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	200	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	250	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	300	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	350	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	400	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
	450	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
	500	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	2.5
	550	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5
	600	1.0	1.0	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5

		Loop Length (metres)										
		1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
Total Loop Load in Alarm (mA)	50	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	100	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	150	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	200	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	250	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	300	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	350	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	400	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
	450	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	500	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	N/A
	550	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	N/A
	600	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	N/A	N/A	N/A

 Copyright Protec Fire Detection PLC

2.4 ALARM CABLING

The main consideration for the alarm cable is the length. This length must include all spurs. For example, an alarm circuit of 800m with three spurs of 150m must be considered as being 1250m in length.

Notes :-

1. The alarm cabling must be wired in a minimum standard of 2.5mm^2 fire rated cable.
2. If however, the total alarm cabling length is less than 1km, then the alarm circuit may be wired in a minimum standard of 1.5mm^2 fire rated cable. In countries where local standards permit, the alarm circuit can be wired in 'Twin Figure 8' cable but the cable length and load will have to be reduced in accordance with the lower conductor size.
3. The maximum permissible alarm circuit length is limited by volt drop.

EACH OF THE ALARM CIRCUITS MUST BE WIRED IN A SEPARATE PAIR. WHEN THE CABLE HAS A SCREEN THEN THE SCREEN MUST BE EARTHED AND CONTINUOUS OVER THE CABLE RUN.

TABLE 1 - CABLING, NUMBER OF CORES

CABLE	Number of Cores
1. Supply 230 volts 50Hz	3
2. Network Data	2
Repeat Panel Data	2
3. Loop Circuit	2 (per loop)
Alarm Circuit	2 (per circuit)
4. Power Pair For: -	
Zone/Alarm Interface Units	2
I/O Interface Units	2
Repeat Panel Power Supply	2
Remote Chargers Only	
5. 24V Supply circuit 1	2
24V Supply circuit 2	2
SF & CI Signals	2

 Copyright Protec Fire Detection PLC

CURRENT CONSUMPTION

It is necessary to calculate current consumption figures for the system in standby (mains fail) and alarm conditions in order to select the correct battery capacity.

3.1 PANEL CURRENT

Details of panel currents for standby and alarm are shown in the 6300 specification later in this manual.

3.2 LOOP CURRENT

Figures for the loop device current for battery capacity calculations are contained in tables 2, 3 and 4. These provide details of the quiescent and alarm currents of both the addressable and non-addressable loop devices.

Note: -

1. Loop isolators, devices that isolate sections of the loop if short circuit wiring faults occur, are available as separate units. Some ‘6000 series’ devices contain an isolator. Check device literature.

2. When using Zone interfaces the current per detector / sounder must be added to the current requirement of the Interface Units (refer to note 2 of table 3).

 Copyright Protec Fire Detection PLC

TABLE 2 – ADDRESSABLE LOOP EQUIPMENT CURRENT DETAILS

ADDRESSABLE DEVICES	QUIESCENT LOOP CURRENT (mA)	ALARM LOOP CURRENT (mA)
LOOP ADDRESSED SOUNDER BASE (6000/ASB2)	0.55	5
LOOP ADDRESSED SOUNDER BASE WITH FLASHING BEACON (6000/ASBEA2)	0.6	10
BREAK GLASS (6000/BGK)	0.5	0.8
IONISATION SMOKE DETECTOR 6000/ION	0.52	0.82
OPTICAL SMOKE DETECTOR 6000/OP	0.55	0.85
OPTICAL HEAT SMOKE DETECTOR 6000/OPHT	0.58	0.88
TEMPERATURE DETECTOR 6000/TEMP	0.48	0.78
RED SYMPHONY SOUNDER 6000/SYM2R	0.5	8
LOOP ADDRESSED SOUNDER 6000/SRZ2	0.5	20
LOOP ADDRESSED BEACON 6000/PVR2	0.5	45
LOOP ADDRESSED SOUNDER BEACON 6000/SRZ2/PVR	0.5	75
MONITORED INPUT CLEAN CONTACT OUTPUT BOARD 6000/MICCO	1.3	5
CLEAN CONTACT OUTPUT BOARD 6000/CCO	0.6	10
MONITORED INPUT BOARD 6000/MIP	0.65	4
LOOP BEAM DETECTOR 6000/BEAM	15	25
TALKING SOUNDER BASE 6000/ATSB2	0.7	10
SYSTEM SOUNDER 6000/SSR2	0.65	5

 Copyright Protec Fire Detection PLC

TABLE 3 – ADDRESSABLE LOOP EQUIPMENT WITH AUXILIARY SUPPLY

CURRENT DETAILS

ADDRESSABLE DEVICES	QUIESCENT (mA)		ALARM (mA)	
	LOOP	24V	LOOP	24V
LOOP ADDRESSED SOUNDER BASE WITH AUXILIARY SUPPLY (6000/ASB4)	0.58	-	1.5	8
LOOP ADDRESSED SOUNDER BASE WITH FLASHING BEACON (AUXILIARY SUPPLY) (6000/ASBEA4)	0.58	-	1.5	25 average 80 peak[1]
LOOP ADDRESSED SOUNDER WITH AUXILIARY SUPPLY 6000/SRZ4	0.5	-	2	20
LOOP ADDRESSED BEACON WITH AUXILIARY SUPPLY 6000/PVR4	0.5	-	2	45
LOOP ADDRESSED SOUNDER BEACON WITH AUXILIARY SUPPLY 6000/SRZ4/PVR	0.5	-	2	75
ZONE ALARM INTERFACE 6000/ZA	0.6	4 + zone load	4	35 + alarm load (1A max)
16 WAY INTERFACE 6000/16WAY[2]	7	18 + zone load + output board load (5A max)	7	18 + zone load + output board load (5A max)

TABLE 4 – NON-ADDRESSABLE LOOP EQUIPMENT CURRENT DETAILS

NON-ADDRESSABLE DEVICE	QUIESCENT (mA)		ALARM (mA)	
	LOOP	24V	LOOP	24V
24V SOUNDER BASE (6000/SB)	-	-	-	7
24V SOUNDER BASE WITH BEACON (6000/SBEA)	-	-	-	25 average 80 peak[1]
FLUSH ISOLATOR UNIT 6000/FIU	0.12	-	0.12	-
BOXED ISOLATOR UNIT 6000/IU	0.12	-	0.12	-
DUAL ISOLATOR BASE 6000/DIB	0.12	-	0.12	-
STANDARD BASE 6000/BASE	-	-	-	-
RELAY BASE 6000/RBNC or 6000/RBNO	0.05	-	15	-

[1] The peak values occur when the beacon is at its 'on' stage during flashing.
[2] There are variants of this product depending upon the monitoring requirements.

 Copyright Protec Fire Detection PLC

INSTALLATION PROCEDURE

4.1 CONTROL PANEL

The 6300 is supplied complete and fully assembled in one box. The box also contains an installation template showing mounting hole & cable entry positions with spirit level and plumb bob references.

1) Unpacking.
Remove the installation template from the packaging - leaving the 6300 unit in the box for protection.

2) Preparing the Mounting Position.
Use the installation template together with a spirit level etc. to mark, drill and plug the 3 mounting holes in the desired position.

3) Removal of the Plastic Door.
Remove the 6300 unit from the packaging. Use the key supplied to unlock the outer plastic door, remove the plastic door by extracting the hinge pins and place the door back in the box for protection.

4) Removal of the Inner Door.
Unscrew the 3 fixings on the metal inner door at the lock side of the door. Open the inner door and disconnect the earthing point on the door and the wide ribbon cable that connects the main board on the door to the back of the enclosure. Close the door and extract the 2 remaining hinge pins. Carefully remove the inner door from the unit including all circuit boards fitted to it and place it back in the box for protection.

5) Removal of the battery clamp and gear-tray.
Remove the two screws holding the battery clamp (if supplied) and carefully withdraw the clamp ensuring that it cannot short out the battery terminals. Remove the 2 screws from the bottom of the gear-tray (in the back of the enclosure) and loosen the two at the top (key-hole fixings). Disconnect the earth connection from the gear-tray to the enclosure. Remove the gear-tray from the enclosure including the attached circuit boards.

6) Preparing and Fixing The Unit.
Using the installation template, mark out suitable positions for cable entry on the back of the enclosure **i.e. not behind the gear-tray**. Cut out the cable entry positions and mount the enclosure at the position prepared in (2) feeding cables through into the box.

7) Re-fitting the gear-tray and battery clamp
Re-fit the gear tray (re-fit is reversal of 5). Ensure that the earth removed in (5) is re-connected **DO NOT CONNECT ANY NON-EARTH TERMINALS**. Refit the battery clamp (refit is reversal of 5) ensuring that the clamp cannot touch the battery terminals. **DO NOT CONNECT THE BATTERIES**

8) Re-fitting the Inner Door
Re-fit the inner door (re-fit is reversal of 4) **ENSURE THAT ALL EARTHING POINTS ARE RE-CONNECTED**.

9) Re-fitting the Plastic Door
Re-fit the outer plastic door by offering the door up to the hinges and inserting the 2 hinge pins.

 Copyright Protec Fire Detection PLC

4.2 FIELD EQUIPMENT

All metal termination boxes and detector bases should be securely fastened to the mounting surface and earth bonded.

FIELD EQUIPMENT MUST NOT BE CONNECTED AT THIS STAGE.

 Copyright Protec Fire Detection PLC

CABLE TEST

Before connecting external cables to any field device, tests must be carried out using a 500V DC insulation tester (Megger). The readings between each cable core, and each core and earth must be greater than 10M ohms (record the readings). Equipment connected to the cabling during insulation tests could be damaged with the high voltages produced. Great care must be taken during insulation tests to discharge the cables, since charged cable may damage the control equipment upon connection.

 Copyright Protec Fire Detection PLC

CONNECTION

For general wiring details see Product Information Drawings - see 'REFERENCES' section.

6.1 CONTROL EQUIPMENT

Wiring details are supplied for reference only. DO NOT MAKE ANY CONNECTIONS TO THE CONTROL PANEL.

6.2 FIELD EQUIPMENT

In order to perform the commissioning of devices correctly, the following procedure needs to be carried out upon installation of each addressable loop device: -

- Remove one of the unique Serial Number bar code labels.
- Place this label at the chosen Node, Loop and Address position in the 'Commissioning Booklet' provided. (The address position was defined in section 1).

With reference to the relevant connection diagrams, connect the remaining field equipment. Note: Insulation tests MUST NOT be carried out after this point and the mains or standby supply MUST NOT be connected.

6.3 ALARM CIRCUITS

Each of the four alarm circuits requires a 10K end-of-line resistor for open and short circuit monitoring.

6.4 FIRE STATION OUTPUT

This output is the 'Output to Fire Alarm Routing Equipment' defined by En54.
It is designed to drive 24V into an 1100Ω load. This output is open and short circuit monitored by the use of a 1K 0.5W end-of-line resistor.

 Copyright Protec Fire Detection PLC

COMMISSIONING REQUIREMENTS

Refer to the supplied copy of COMMISSIONING STANDARD TERMS for details of requirements before commissioning can take place.

Note: The Fire Alarm Commissioning Application form must be completed and returned 14 days before a commissioning engineer can attend.

 Copyright Protec Fire Detection PLC

6300 SPECIFICATION

POWER SUPPLY MAINS	230V AC Nominal ± 10% (T1A 250V HBC Fuse)
WORKING VOLTAGE	21.5 - 30V DC
CURRENT CONSUMPTION	180mA WITHOUT LOOP LOAD @ 24V DC MAINS FAILED, PRINTER STATIONARY
MAXIMUM LOOP CURRENT	600mA per loop
ANALOGUE ADDRESSES	4 LOOPS, 191 ADDRESSES PER LOOP (Maximum of 512 Detectors and Manual Call Points to comply with En54)
ZONES	32
ALARM OUTPUTS	i) 4 MONITORED 24V DC (T1A 250V FUSES) ii) 2 NON MONITORED - (CONTACTS 1A RATED @ 24V DC) iii) LOOP ADDRESSABLE OUTPUT DEVICES, SUBJECT TO THE FOLLOWING PARAMETERS NOT BEING EXCEEDED: - THE MAXIMUM NUMBER OF DEVICES PER LOOP THE MAXIMUM LOOP LENGTH THE MAXIMUM LOOP CURRENT.
MAXIMUM ALARM LOAD	3A WITH INTEGRAL POWER UNIT (INCLUDING LOOP CURRENT AND INTERNAL PANEL CONSUMPTION).
FIRE STATION OUTPUT	MONITORED 24V DC OUTPUT RATED @ 20mA max
FAULT OUTPUT	SINGLE POLE CHANGEOVER CONTACTS - (1A RATED @ 24V DC)
SERIAL COMMUNICATIONS NETWORK	2 WIRE RS485 COMMS + 2 WIRE POWER 2 WIRE RS485 LOOP
INTEGRAL CHARGER	3A SWITCH MODE (Protec series 9000 PSU)
INTEGRAL BATTERIES (Lynteck OL Models)	4 x 6V 10Ah Sealed lead acid 2 x 12V 26Ah Sealed lead acid (when using the external battery box mounted beneath the panel)
AUXILIARY 24V OUTPUT	24V DC (F1A 250V FUSE)
INTERNAL PRINTER SUPPLY	24V DC (F1A 250V FUSE)
TEMPERATURE RANGE	0-40°C
HUMIDITY LIMIT	85% NON-CONDENSING
ENVIRONMENT	The 6300 meets IP30. It must be mounted in a dry position that does not exceed the temperature or humidity limits specified above.
DIMENSIONS	385(H) x 440(W) x 145(D)
ENCLOSURE	Storm grey textured enclosure smooth inner door with molded v-rated polycarbonate lockable front door
MOUNTING	3 points surface mount

 Copyright Protec Fire Detection PLC

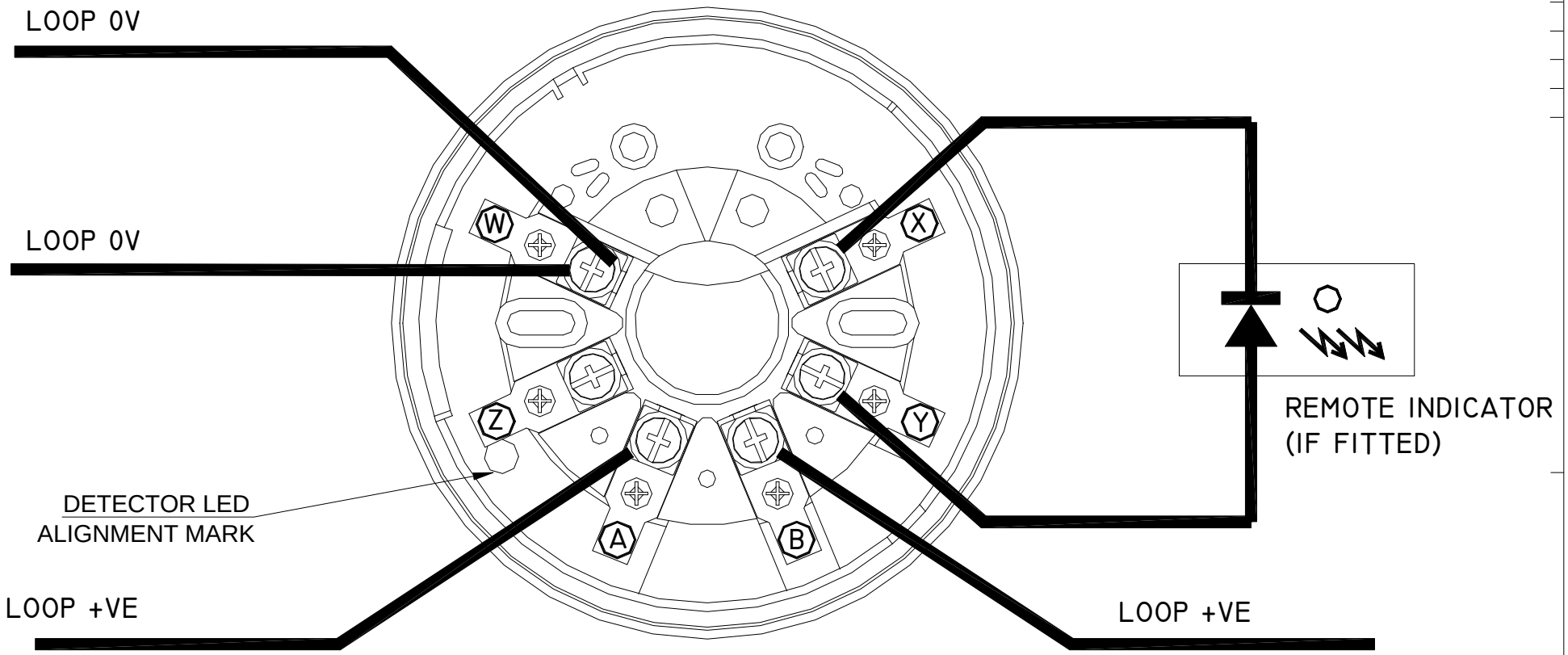
APPENDIX A

The following Product Information Drawings (PIDs) are attached :-

PID 165	-	6000/DIB Isolator Base Details
PID 166	-	2 Wire 6000/ASB2 Analogue sounder Base with Isolator
PID 167	-	6000/SB Conventional sounder Base with Analogue Detector
PID 168	-	6000/BASE Low Profile Base Wiring Details
PID 171	-	6000 ZAI Wiring diagram for Zone Alarm Interface
PID 180	-	6000/ASB4 6000/ASBEA4 Sounder Base
PID 182	-	6000/MICCO Wiring Diagram
PID 186	-	6200 / 6300 Loop Powered Beam Detector Wiring Diagram
PID 189	-	6000 Series 16 Way input pcb details
PID 192	-	6000DP Analogue base wiring diagram
PID 194	-	6300 Network connections
PID 196	-	Series 6000 Breakglass Wiring Diagram
PID 197	-	S6000 N/C 16 Way Input pcb details.
PID 201	-	6300 Terminal Board Connections
PID 202	-	6300 Repeat Terminal Board Connections
PID 203	-	6300 Example System Diagram
PID 207	-	6000 System Sounder Wiring Details
PID 212	-	6300 Loop LCD Connector Data Sheet
PID 213	-	6300 Loop LCD Connection Data Sheet
PID 214	-	6300 Loop LCD Configuration Data Sheet
PID 218	-	6300 Loop RPT Wiring Details
PID 219	-	6000 Monitored I/P Interface
PID 221	-	6000 Clean Contact O/P
PID 222	-	6000/RBNO, 6000/RBNC

 Copyright Protec Fire Detection PLC

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	"OUT" & "IN" REMOVED FROM +VE LINE	SB	S BROWN	A5215	5.9.00



Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est.,
Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
1:1	DRAWN	S BISCOMB	25-3-99
	CHECKED	D R REEVES	25-3-99
	APPROVED	N HARLING	25-3-99

TITLE 6000/DIB ISOLATOR BASE DETAILS.

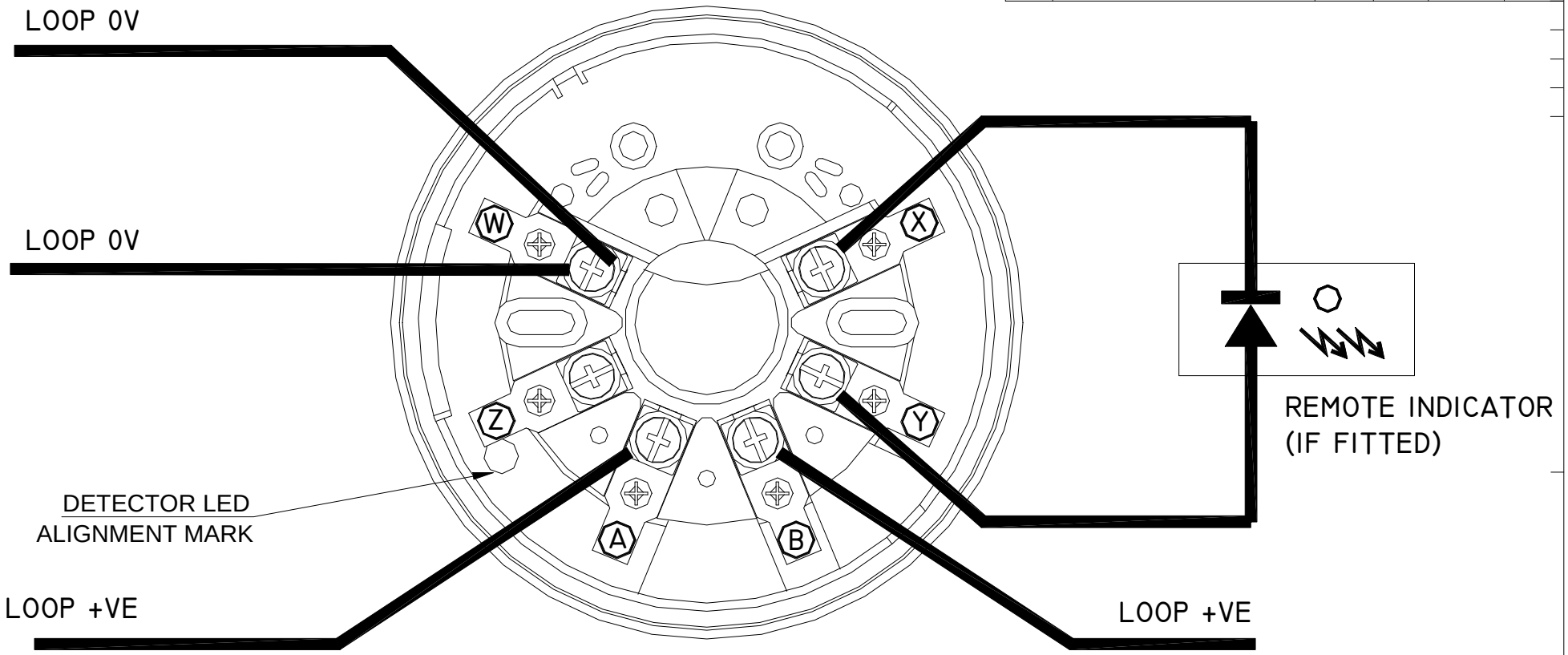
DRAWING No. PID165

JOB No.

ISSUE 0 1

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	"OUT" & "IN" REMOVED FROM +VE LINE	SB	S BROWN	A5215	5.9.00
2	"6000/ASBEA2" ADDED TO TITLE	SB	S BROWN	A5292	5.10.00



Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est.,
Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
1:1	DRAWN	S BISCOMB	25-3-99
	CHECKED	D R REEVES	25-3-99
	APPROVED	N HARLING	25-3-99

2 WIRE 6000/ASB2 & 6000/ASBEA2
ANALOGUE SOUNDER BASE
WITH ISOLATOR.

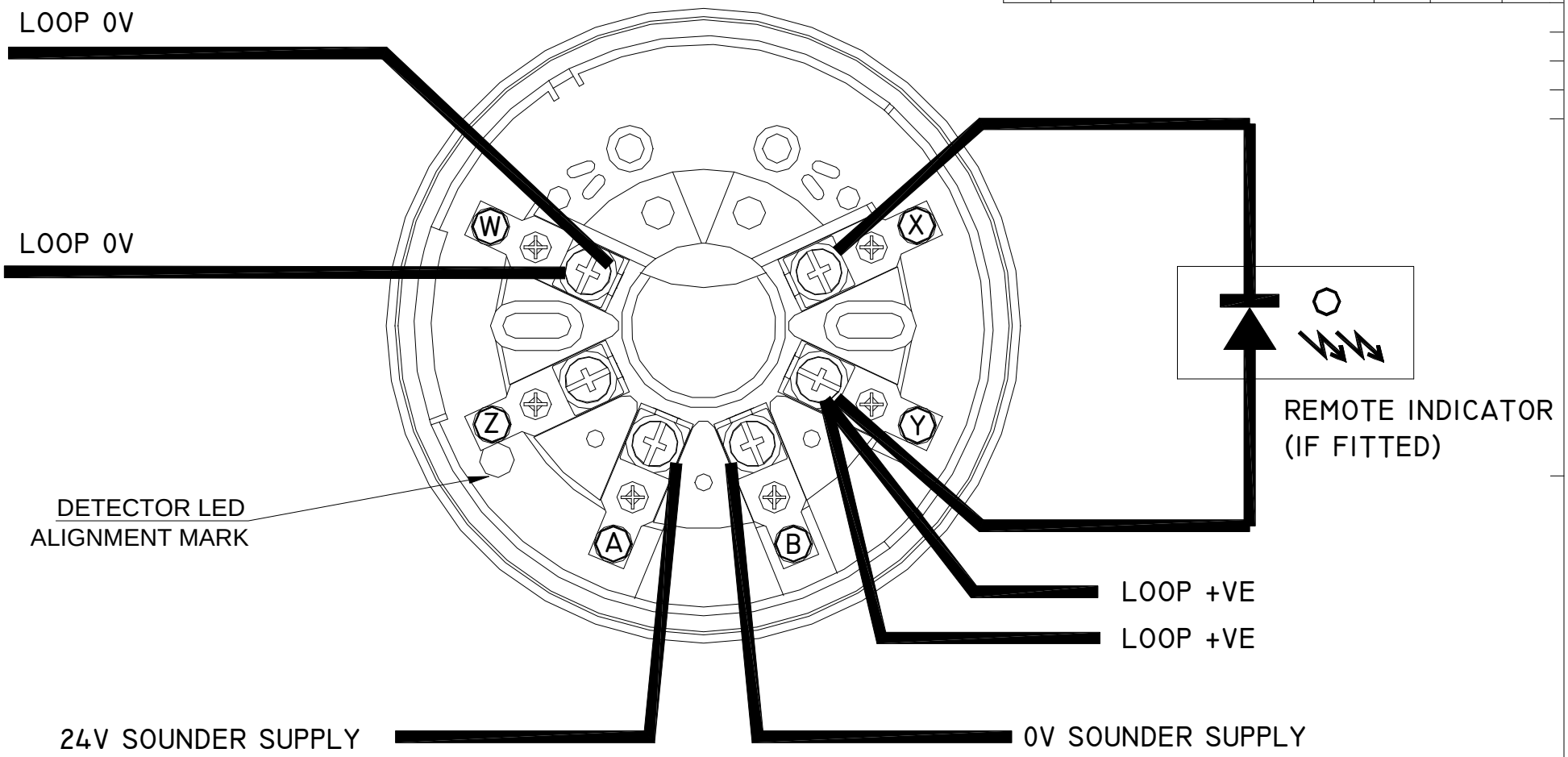
DRAWING No. PID166

JOB No.

ISSUE 0 1 2

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	TITLE DETAILS MODIFIED	SB	DRR	A4688	5.1.00
2	"OUT" & "IN" REMOVED FROM +VE LINE	SB	S BROWN	A5215	5.9.00



© Protec

Protec Fire Detection plc

Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
1:1	DRAWN	S BISCOMB	25-3-99
	CHECKED	D R REEVES	25-3-99
	APPROVED	N HARLING	25-3-99

6000/SB AND 6000/SBEA CONVENTIONAL SOUNDER BASE WITH ANALOGUE DETECTOR.

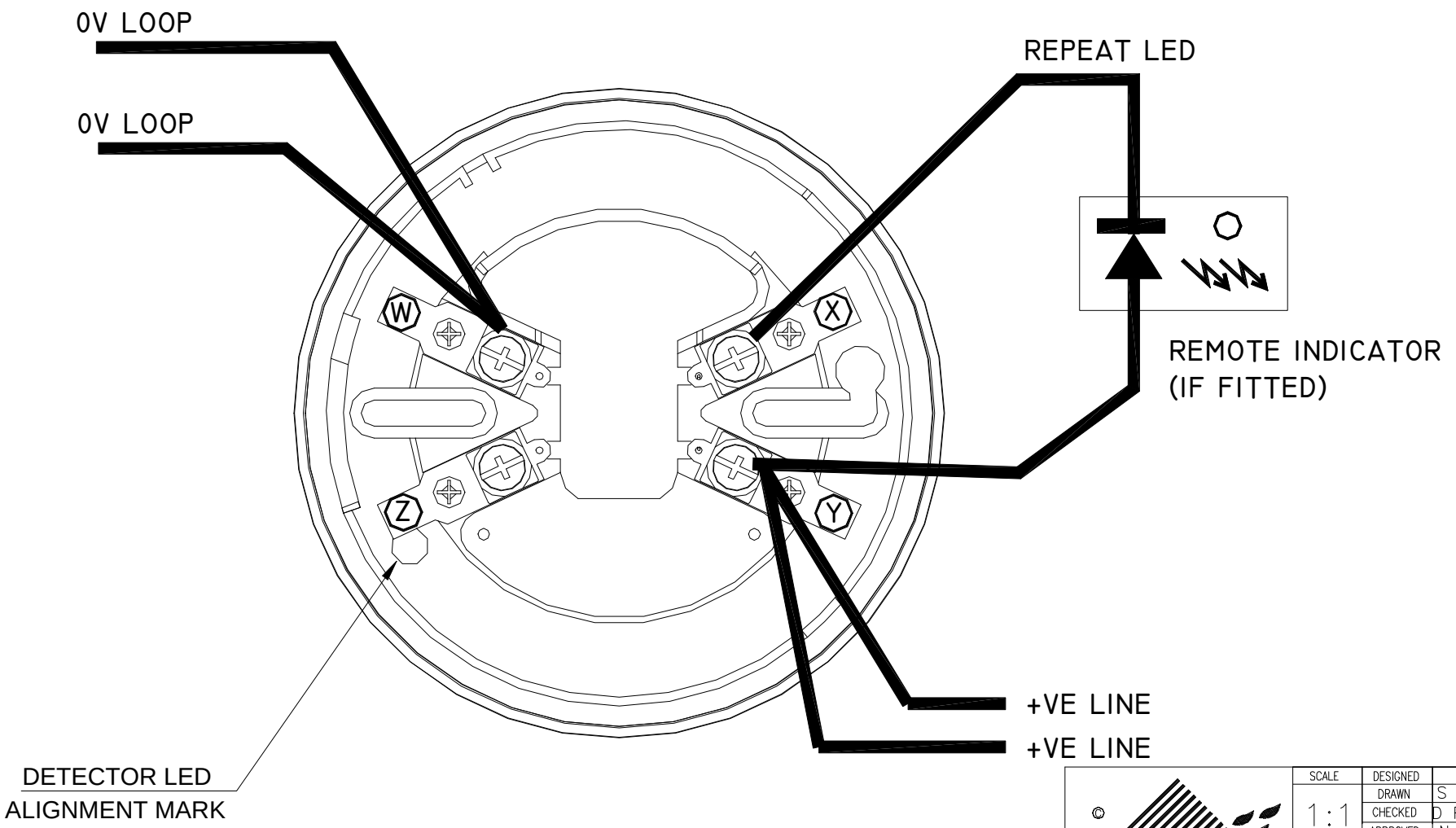
DRAWING No. PID167

ISSUE 0 1 2

JOB No.

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	"OUT" & "IN" REMOVED FROM +VE LINE	SB	S BROWN	A5215	5.9.00



Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est.,
Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
1:1	DRAWN	S BISCOMB	23-3-99
	CHECKED	D R REEVES	23-3-99
	APPROVED	N HARLING	23-3-99

TITLE
6000/BASE LOW PROFILE
BASE WIRING DETAILS

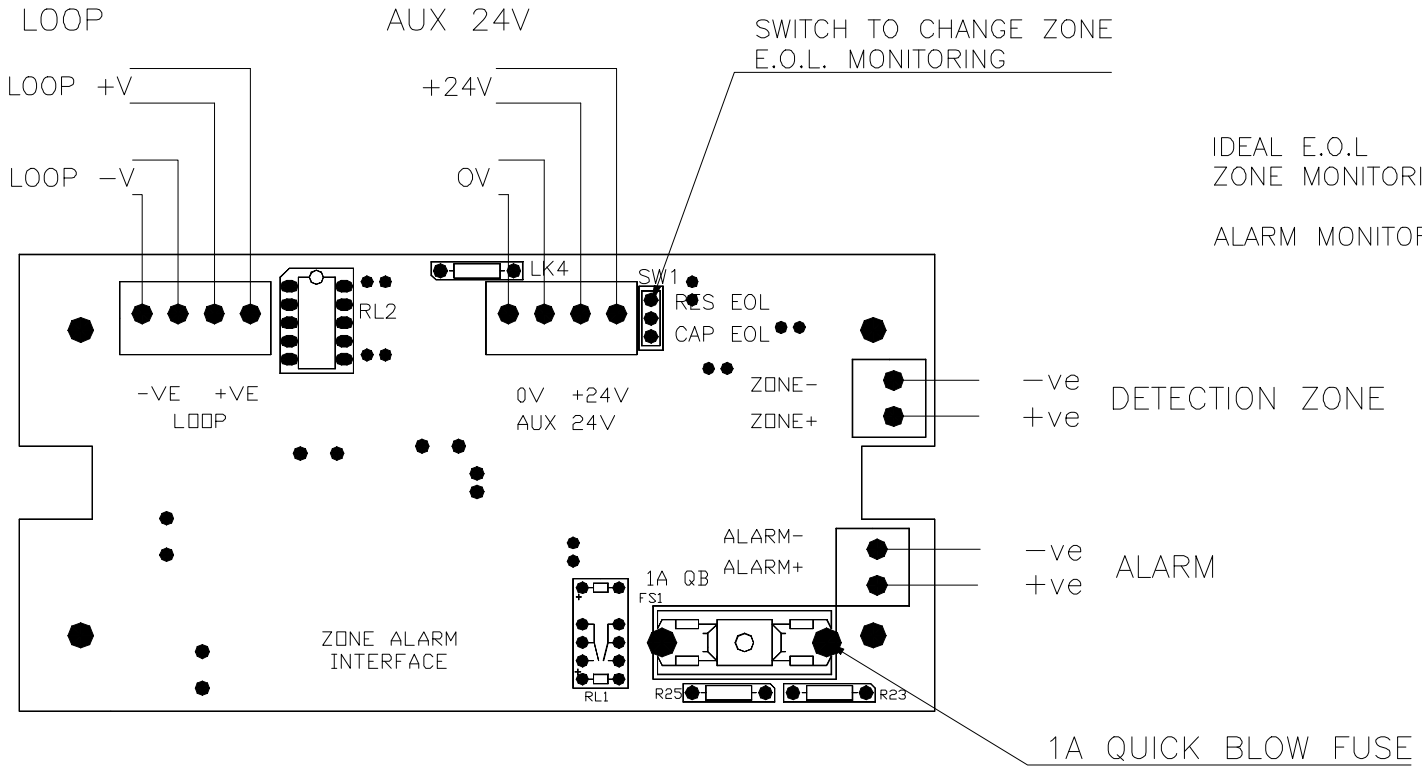
DRAWING No. PID168

JOB No.

ISSUE ~~0~~ 1

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	"OUTPUT" & "INPUT" REMOVED FROM +VE LINE	SB	S BROWN	A5215	5.9.00



ZONE ALARM INTERFACE

SCALE	DESIGNED		
NTS	DRAWN	S BISCOMB	4.5.99
	CHECKED	S BROWN	4.5.99
	APPROVED	D R REEVES	4.5.99

TITLE 6000/ZAI WIRING DIAGRAM FOR ZONE ALARM INTERFACE

CLIENT

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

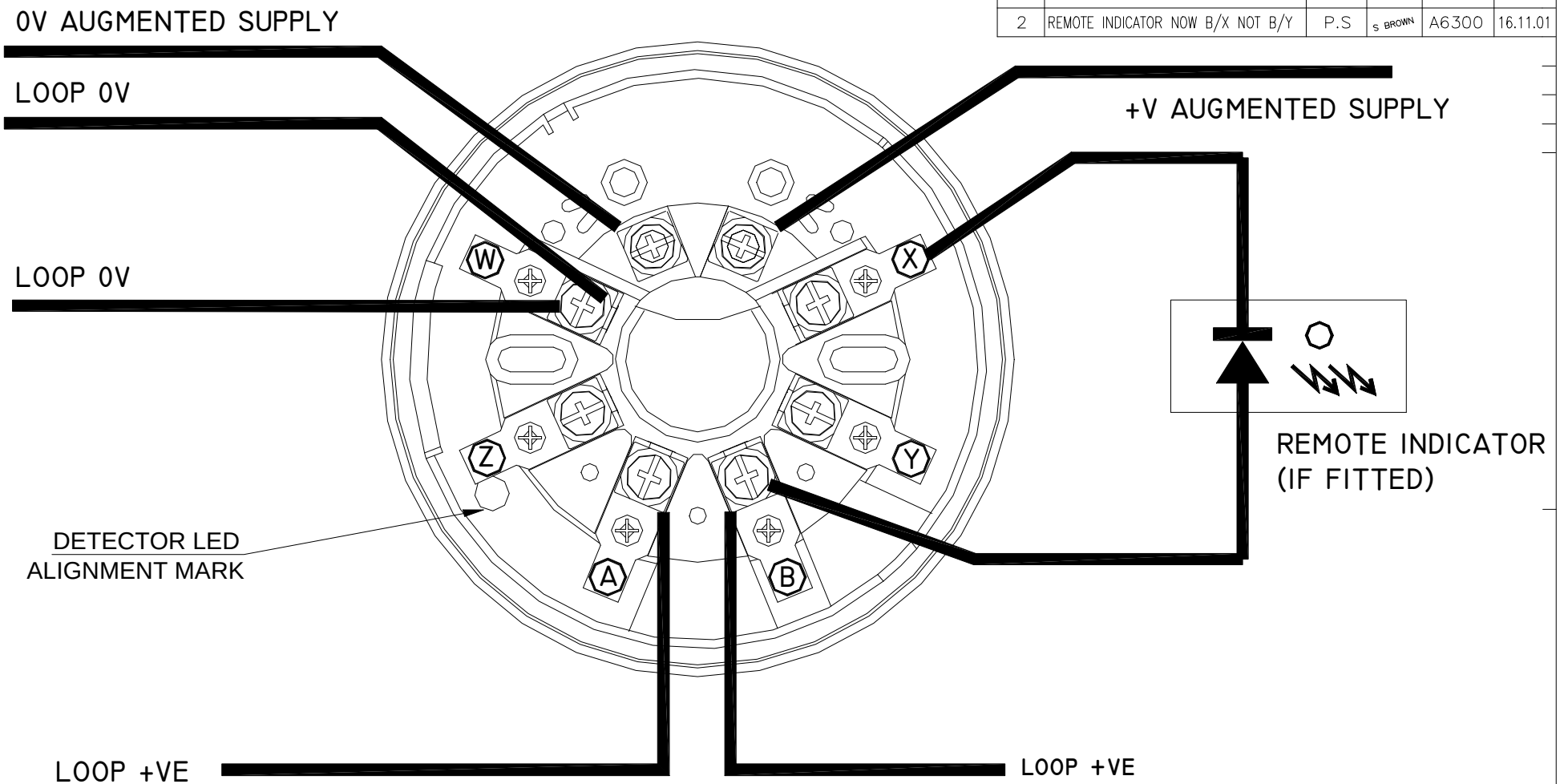
DRAWING No. PID 171

ISSUE 0 1

JOB No.

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	"OUT" & "IN" REMOVED FROM +VE LINE	SB	S BROWN	A5215	5.9.00
2	REMOTE INDICATOR NOW B/X NOT B/Y	P.S	S BROWN	A6300	16.11.01



SCALE	DESIGNED		
1:1	DRAWN	S BISCOMB	2-9-99
	CHECKED	D R REEVES	7-9-99
	APPROVED	S BROWN	7-9-99

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

6000/ASB4,6000/ ASBEA4 SOUNDER BASE

DRAWING No. PID180

JOB No.

ISSUE 0 1 2

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	FIGURE 1 ADDED	SB	S BROWN	A4828	15.3.00
2	PRODUCT VARIANTS ADDED	SB	S BROWN	A5120	27.7.00
3	"OUT" & "IN" REMOVED FROM +VE LINE	SB	S BROWN	A5215	5.9.00

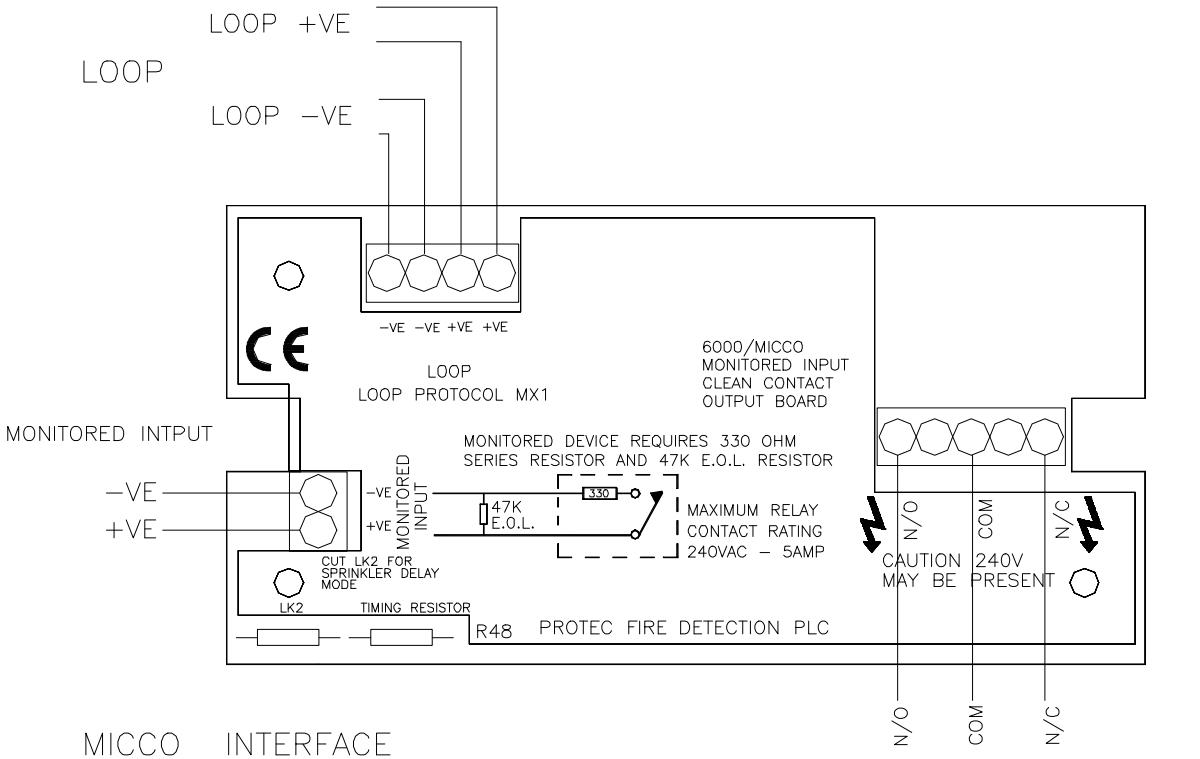


Figure 1 (Delay time versus nearest R48 value)

Time(s)	R48 (kΩ)
1	Zero (link)
2	10
6	47
10	82
14	120(factory fitted)
17	150
20	180
25	220
30	270

PRODUCT VARIANTS	
6000/MICCO	WIRE CHANGE OVER CONTACTS AS REQ'D.
6000/MICCO/240	WIRE CHANGE OVER CONTACTS AS REQD.
6000/MICCO/SDU	CUT LK2 FOR SPRINKLER DELAY. ALTER TIMING RESISTER R48 IF REQUIRED.

A4

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
NTS	DRAWN	S BISCOMB	23.11.99
	CHECKED	D R REEVES	23.11.99
	APPROVED	S BROWN	23.11.99

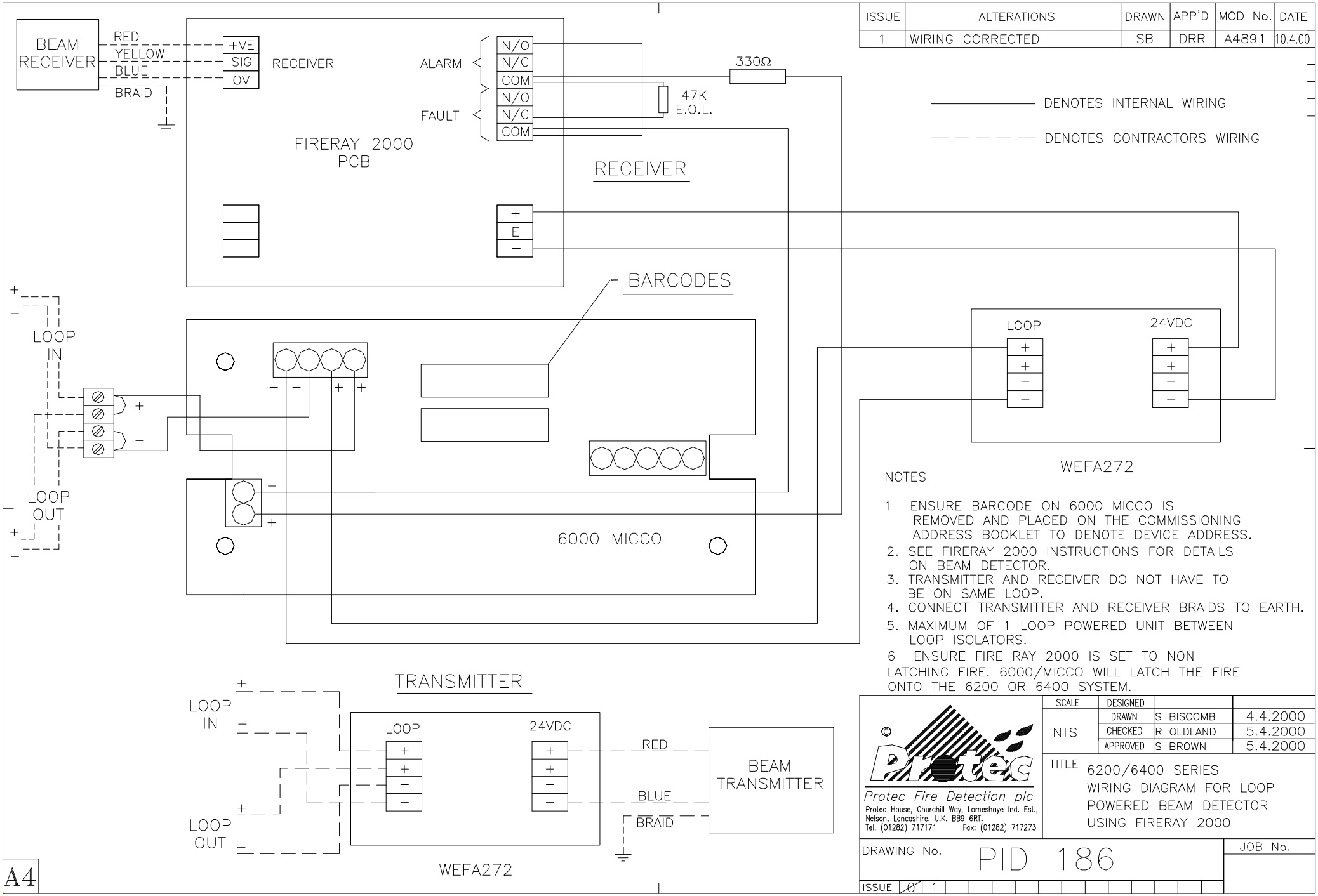
TITLE 6000/MICCO WIRING DIAGRAM FOR MICCO INTERFACE

CLIENT

DRAWING No. PID182

JOB No.

ISSUE 0 1 2 3



ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	WIRING CORRECTED	SB	DRR	A4891	10.4.00

NOTES

1 ENSURE BARCODE ON 6000 MICCO IS REMOVED AND PLACED ON THE COMMISSIONING ADDRESS BOOKLET TO DENOTE DEVICE ADDRESS.
2. SEE FIRERAY 2000 INSTRUCTIONS FOR DETAILS ON BEAM DETECTOR.
3. TRANSMITTER AND RECEIVER DO NOT HAVE TO BE ON SAME LOOP.
4. CONNECT TRANSMITTER AND RECEIVER BRAIDS TO EARTH.
5. MAXIMUM OF 1 LOOP POWERED UNIT BETWEEN LOOP ISOLATORS.
6 ENSURE FIRE RAY 2000 IS SET TO NON LATCHING FIRE. 6000/MICCO WILL LATCH THE FIRE ONTO THE 6200 OR 6400 SYSTEM.

© Protec
Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
NTS	DRAWN	S BISCOMB	4.4.2000
	CHECKED	R OLDLAND	5.4.2000
	APPROVED	S BROWN	5.4.2000

TITLE 6200/6400 SERIES WIRING DIAGRAM FOR LOOP POWERED BEAM DETECTOR USING FIRERAY 2000

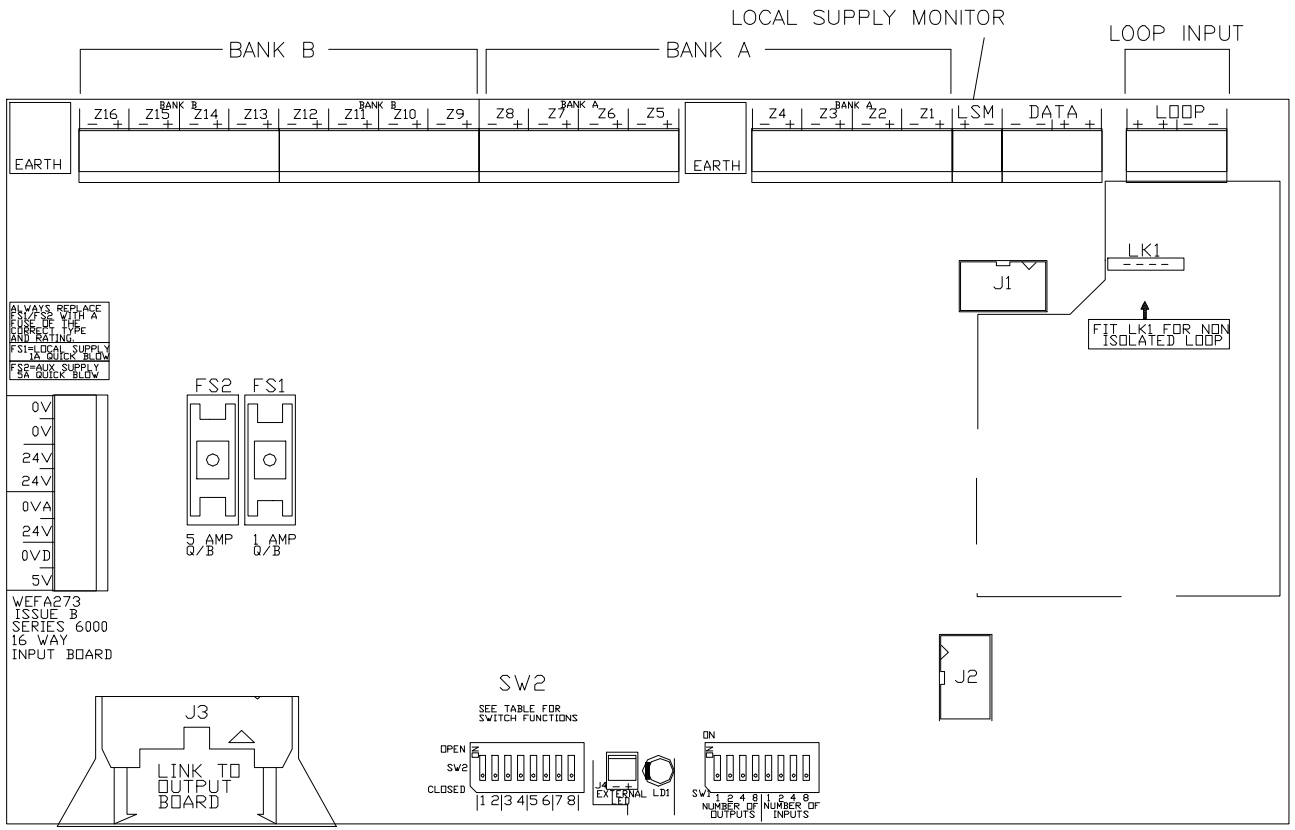
DRAWING No. PID 186

JOB No.

ISSUE 0 1

A4

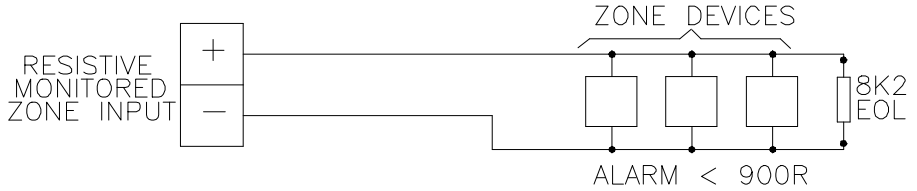
ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	S600 NO 16 WAY BOARD NOTE ADDED	P.Garnett		A5260	7-6-00

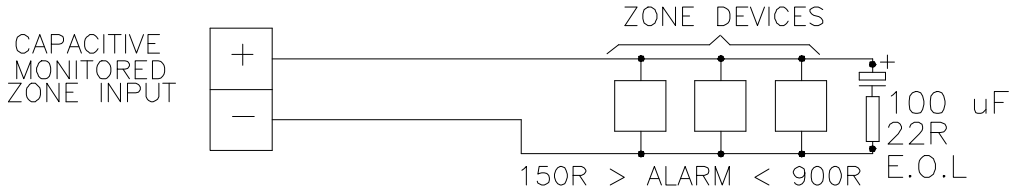


BOARD CONFIGURATION (SW2 FUNCTION) TABLE			
#	FUNCTION	OPEN	CLOSED
1	O/P BOARD MONITORING	DISABLED	ENABLED
2			
3	BANK B FIRE CONDITION	NON LATCHING	LATCHING
4	BANK A FIRE CONDITION	NON LATCHING	LATCHING
5	BANK B MONITORING	RESISTIVE	CAPACITIVE
6	BANK B SPRINKLER DELAY	ON	OFF
7	BANK A MONITORING	RESISTIVE	CAPACITIVE
8	BANK A SPRINKLER DELAY	ON	OFF

NOTES :

- IF NO LOOP ISOLATION FUNCTION IS REQUIRED FIT LK1
- THE EARTH TERMINALS MUST BE CONNECTED TO A CONVENIENT SYSTEM EARTH POINT
- 'DATA' CONNECTION TYPE DEPENDS ON TYPE OF COMMUNICATION MODULE FITTED.
- LSM INPUT IS NORMALLY CLOSED (OPEN FOR FAULT)
- SPRINKLER DELAY TIME = 14 SECONDS
- NO = NORMALLY OPEN





S6000 NO 16 WAY BOARD

SCALE	DESIGNED		
	DRAWN	D.R.REEVES	5.6.00
	CHECKED	N.HARLING	7-6-00
	APPROVED	P.Garnett	7-6-00

TITLE S6000 16 WAY INPUT PCB DETAILS (WEFA273 ISSUE B)

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 692621 Fax: (01282) 602570

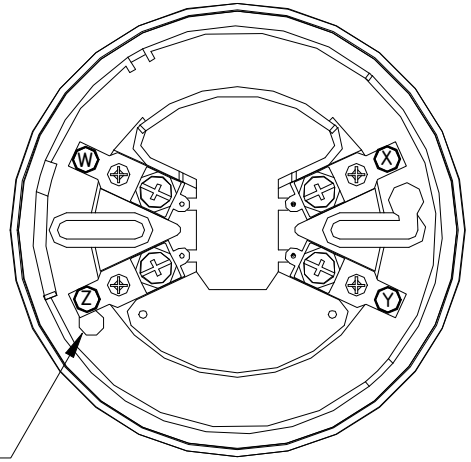
DRAWING No. PID189

JOB No.

ISSUE 0 1

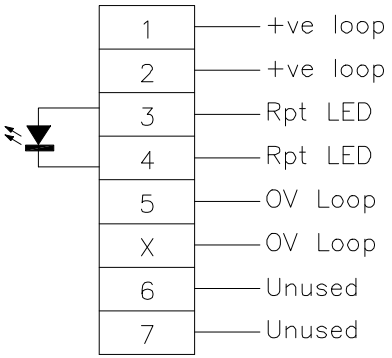
A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	TERMINAL BLOCK & CHART MODIFIED	JW	SB	A5180	24.8.00
2	TERMINAL BLOCK & CHART MODIFIED	SB	S Brown	A5378	9.11.00
2	CHART MODIFIED	JH		A6884	4.7.02



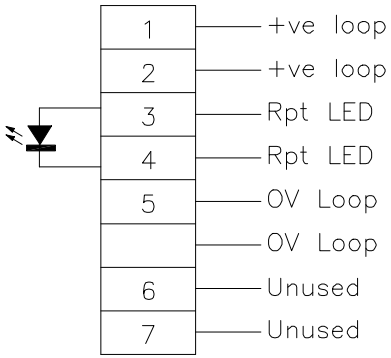
Terminal Block connection	Usage	Base Connection
1	+ve loop	Y
2	+ve loop	Y
3	Rpt LED	Y
4	RPT LED	X
5	OV Loop	W
X (or space)	OV Loop	W
6	Unused	
7	Unused	

SUPPLIED OPTION 1



TERMINAL BLOCK
IN
DUCT HOUSING

SUPPLIED OPTION 2



TERMINAL BLOCK
IN
DUCT HOUSING

FINAL CHECKS

A)Ensure the arrow on the clear perspex cover of the STA–D5 duct is pointing in the same direction as the air flow in the duct.

B)Check the rubber gasket between the base of the STA–D5 and the ducting and ensure the seal between them is airtight.

C)Check the flow indicator is oscillating thus ensuring airflow through the detector.

D)It is recommended that smoke from a smoke generator/or smoke pellets is introduced directly into the duct to check correct function of the detector via Venturi pipe.

A4

© Protec
Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
NTS	DRAWN	S BISCOMB	12.6.00
	CHECKED	S.BROWN	16.6.00
	APPROVED	P.GARNETT	19.6.00

TITLE
6000DP ANALOGUE BASE WIRING DETAILS

DRAWING No. PID192

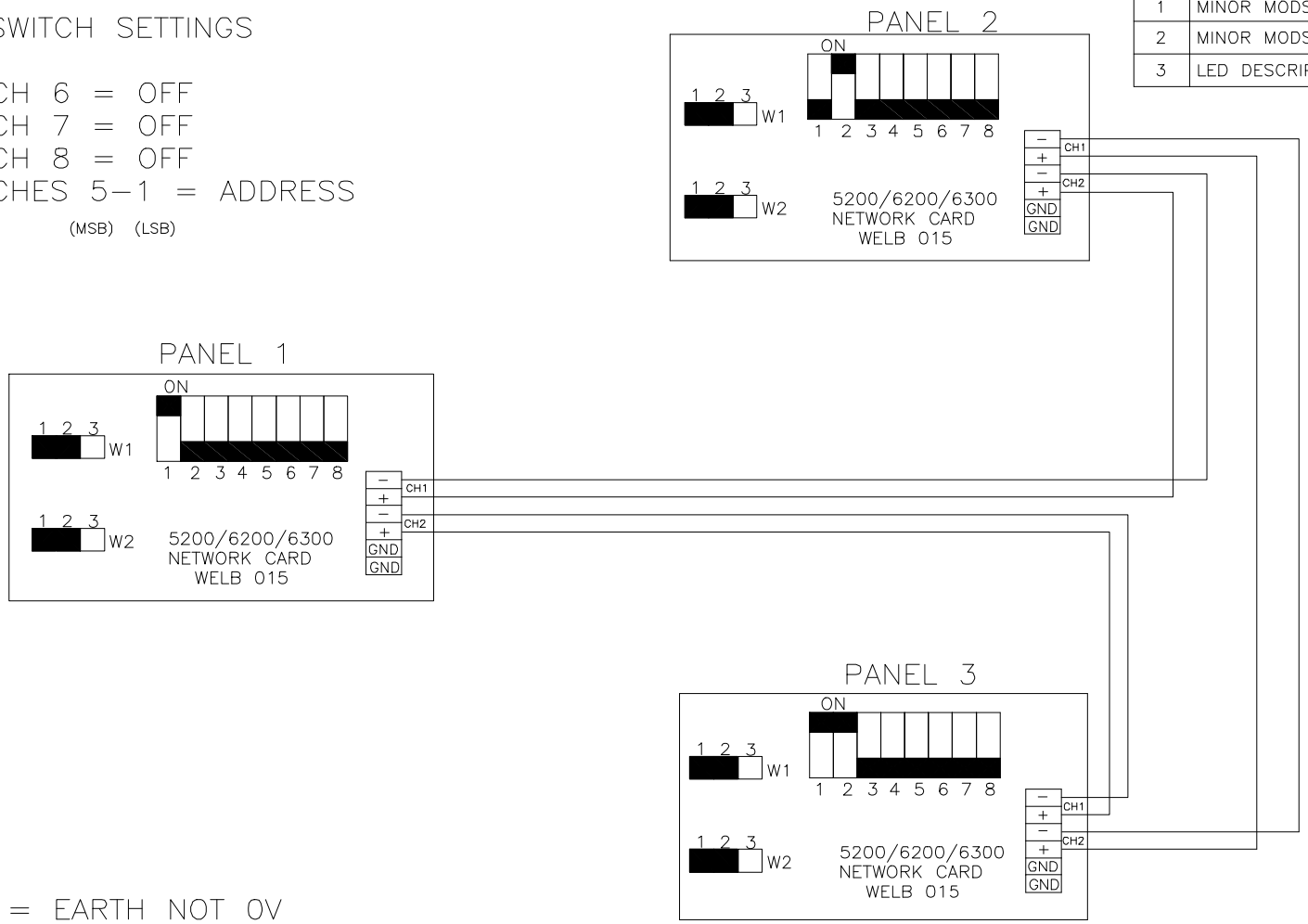
JOB No.

ISSUE 0 1 2 3

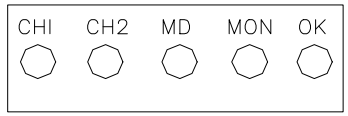
ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	MINOR MODS	CLW	JW	A5164	15.8.00
2	MINOR MODS	JH	RPO	A6025	10.7.01
3	LED DESCRIPTIONS ADDED	LMc	RPO	A7106	23.9.02

DIL SWITCH SETTINGS

SWITCH 6 = OFF
SWITCH 7 = OFF
SWITCH 8 = OFF
SWITCHES 5–1 = ADDRESS
(MSB) (LSB)



NETWORK CARD LEDS



CH1 LIT WHEN RECEIVING ON RS485 CH1 OR WHEN SENDING A NEW EVENT TO THE HOST

CH2 LIT WHEN RECEIVING ON RS485 CH2

MD LIT WHEN THIS CARD IS TRANSMITTING OR WAITING TO TRANSMIT ON THE NETWORK

MON LIT WHEN THIS CARD IS MONITORING BOTH RS485 CHANNELS

OK FLASHING 0.5 SECONDS ON 0.5 SECONDS OFF

NOTE:
1)GND = EARTH NOT 0V
2)A COMMON 0V IS NOT REQUIRED, OPTO–ISOLATION OF BOTH CHANNELS IS PROVIDED AS STANDARD
3)ADDRESSES MUST BE CONSECUTIVE AROUND THE LOOP.
4)ADDRESSES MUST BE THE SAME AS THOSE ASSIGNED ON EACH PANEL.

A4

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
N.T.S.	DRAWN	G.INGHAM	27.6.00
	CHECKED	P.STRICKLAND	29.6.00
	APPROVED	P.DEW	29.6.00

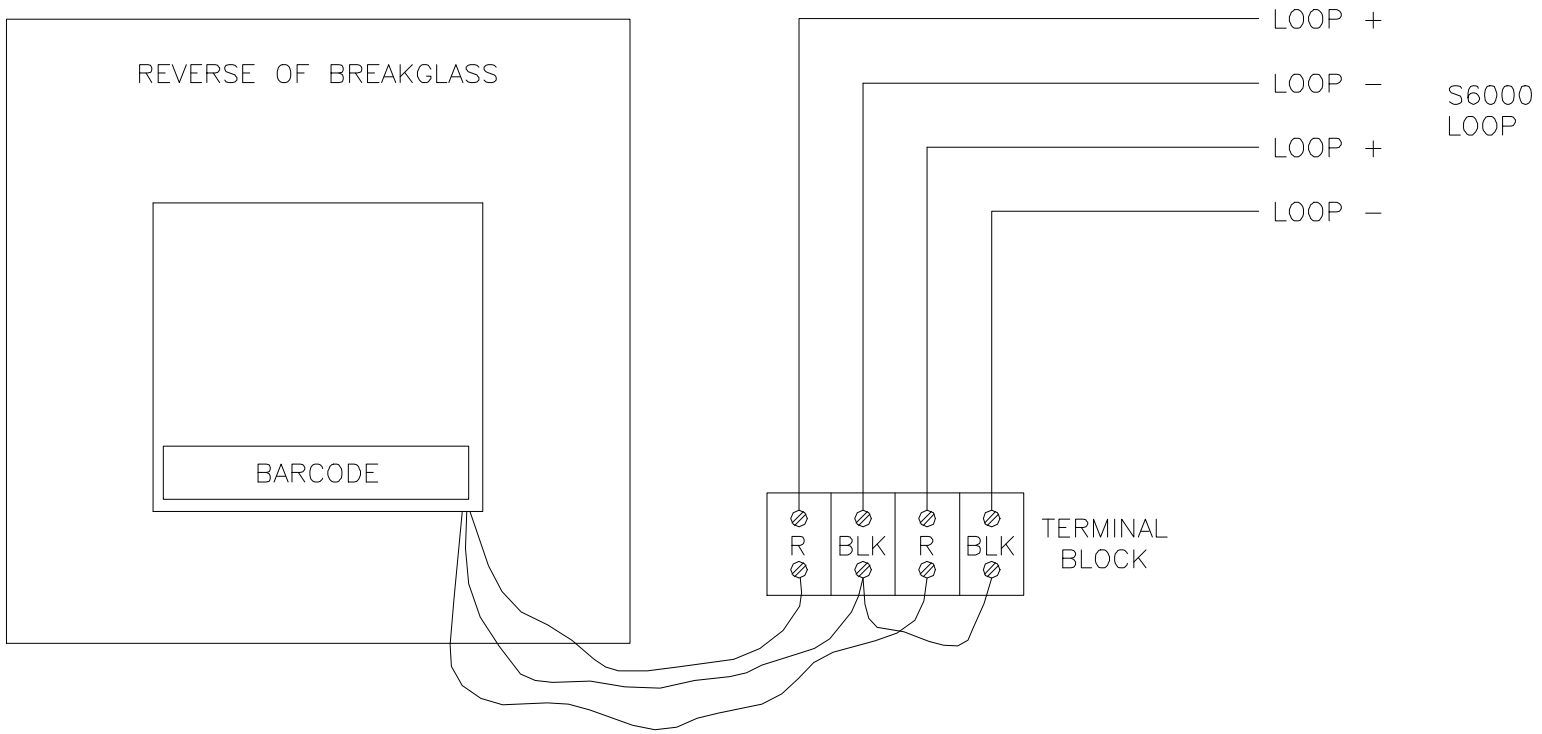
TITLE 5200/6200/6300 NETWORK CONNECTIONS

DRAWING No. PID194

JOB No.

ISSUE 0 1 2 3

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE



Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est.,
Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
N.T.S	DRAWN	P.STRICKLAND	15.9.00
	CHECKED	R OLDLAND	15.9.00
	APPROVED	N HARLING	15.9.00

TITLE SERIES 6000 BREAKGLASS WIRING DIAGRAM

CLIENT

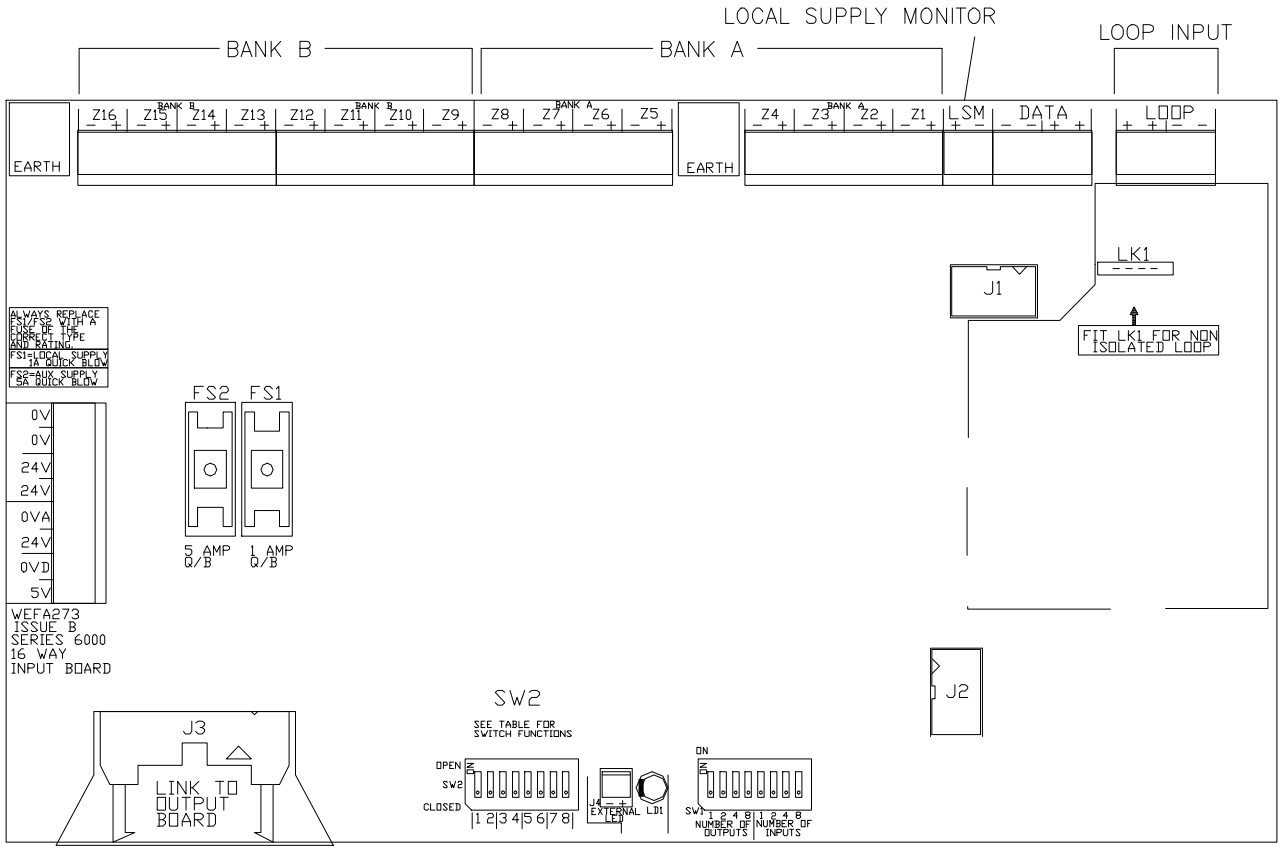
DRAWING No. PID 196

JOB No.

ISSUE 0

A4

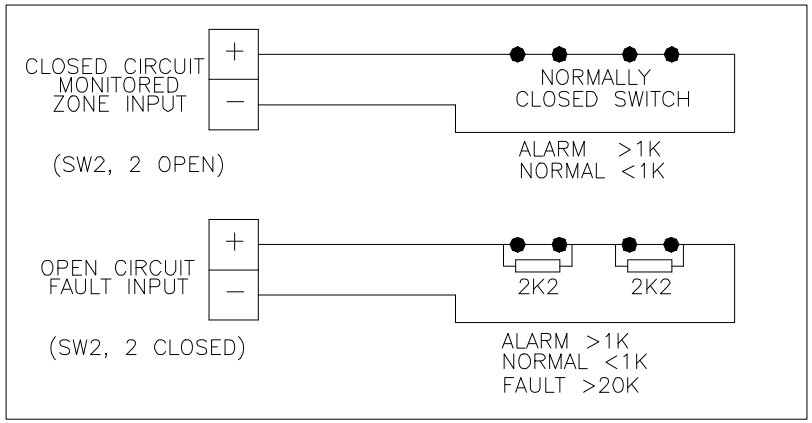
ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE



BOARD CONFIGURATION (SW2 FUNCTION) TABLE			
#	FUNCTION	OPEN	CLOSED
1	O/P BOARD MONITORING	DISABLED	ENABLED
2	N/C / NCF SELECT	NC	NCF
3	BANK B FIRE CONDITION	NON LATCHING	LATCHING
4	BANK A FIRE CONDITION	NON LATCHING	LATCHING
5			
6	BANK B SPRINKLER DELAY	ON	OFF
7			
8	BANK A SPRINKLER DELAY	ON	OFF

NOTES :

- IF NO LOOP ISOLATION FUNCTION IS REQUIRED FIT LK1
- THE EARTH TERMINALS MUST BE CONNECTED TO A CONVENIENT SYSTEM EARTH POINT
- 'DATA' CONNECTION TYPE DEPENDS ON TYPE OF COMMUNICATION MODULE FITTED.
- LSM INPUT IS NORMALLY CLOSED (OPEN FOR FAULT)
- SPRINKLER DELAY TIME = 14 SECONDS
- NC = NORMALLY CLOSED
  NCF = NORMALLY CLOSED WITH O/C FAULT MONITORING



ZONE CONNECTION DETAILS

S6000 NC & NCF 16 WAY BOARD

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 692621 Fax: (01282) 602570

SCALE	DESIGNED		
NTS	DRAWN	S BISCOMB	19.9.00
	CHECKED	P.Garnett	25-9-00
	APPROVED	N.HARLING	25-9-00

TITLE S6000 N/C 16 WAY INPUT PCB DETAILS (WEFA273 ISSUE B)

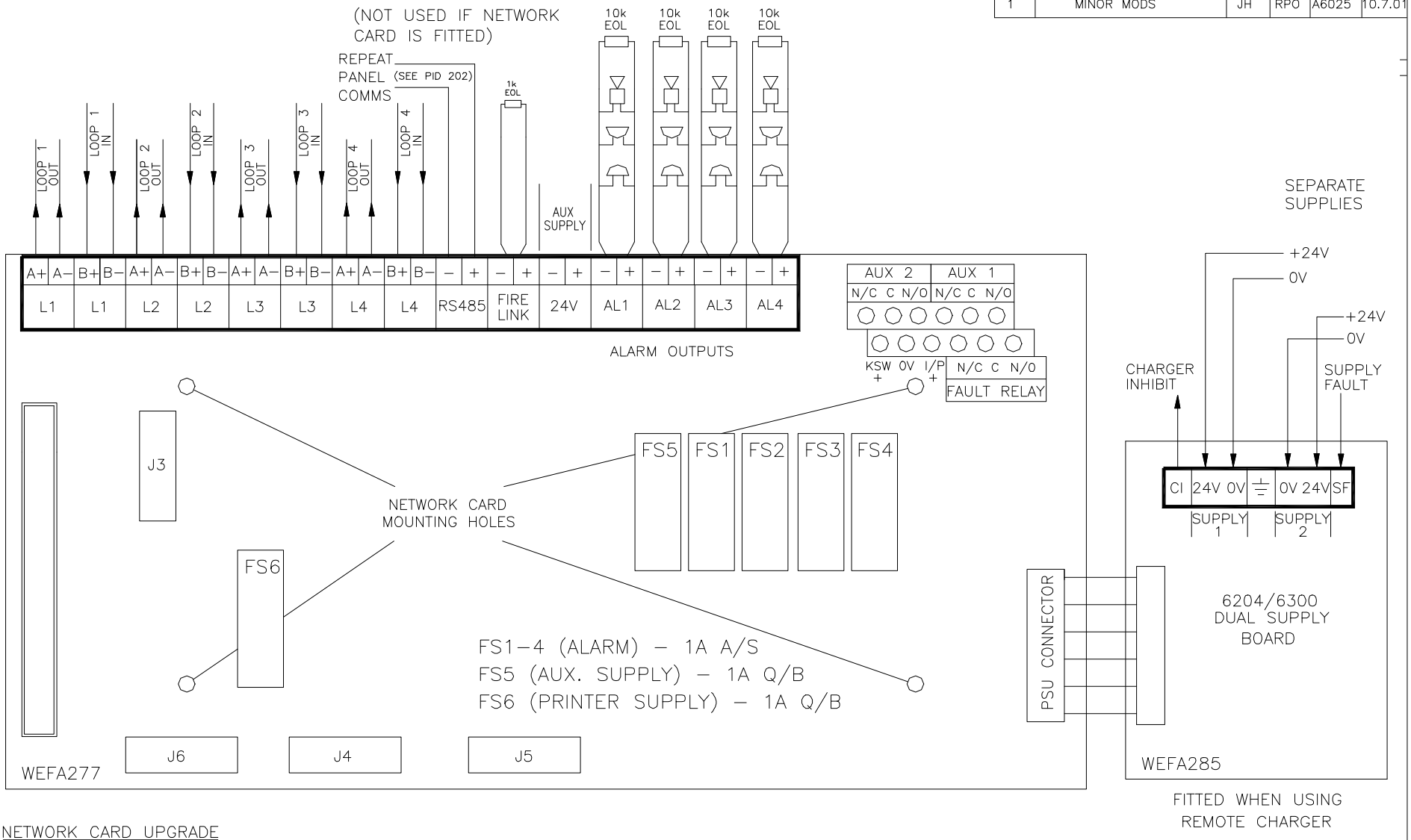
DRAWING No. PID197

ISSUE 0

JOB No.

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	MINOR MODS	JH	RPO	A6025	10.7.01



NETWORK CARD UPGRADE

1) FIT THE 4 STANDOFFS TO THE FIXING HOLES.
2) MOUNT THE NETWORK CARD ONTO THE STANDOFFS.
3) FIT POWER LEAD (SUPPLIED) FROM J3 TO NETWORK CARD J1.
4) FIT 232 LEAD (SUPPLIED) FROM J4 TO NETWORK CARD J4.
5) USE THE RS485 TERMINALS ON THE NETWORK CARD AND NOT THOSE ON THE TERMINAL BOARD.

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
N.T.S.	DRAWN	J HACKING	26.3.01
	CHECKED	R.P.OLDLAND	28.3.01
	APPROVED	P.DEW	28.3.01

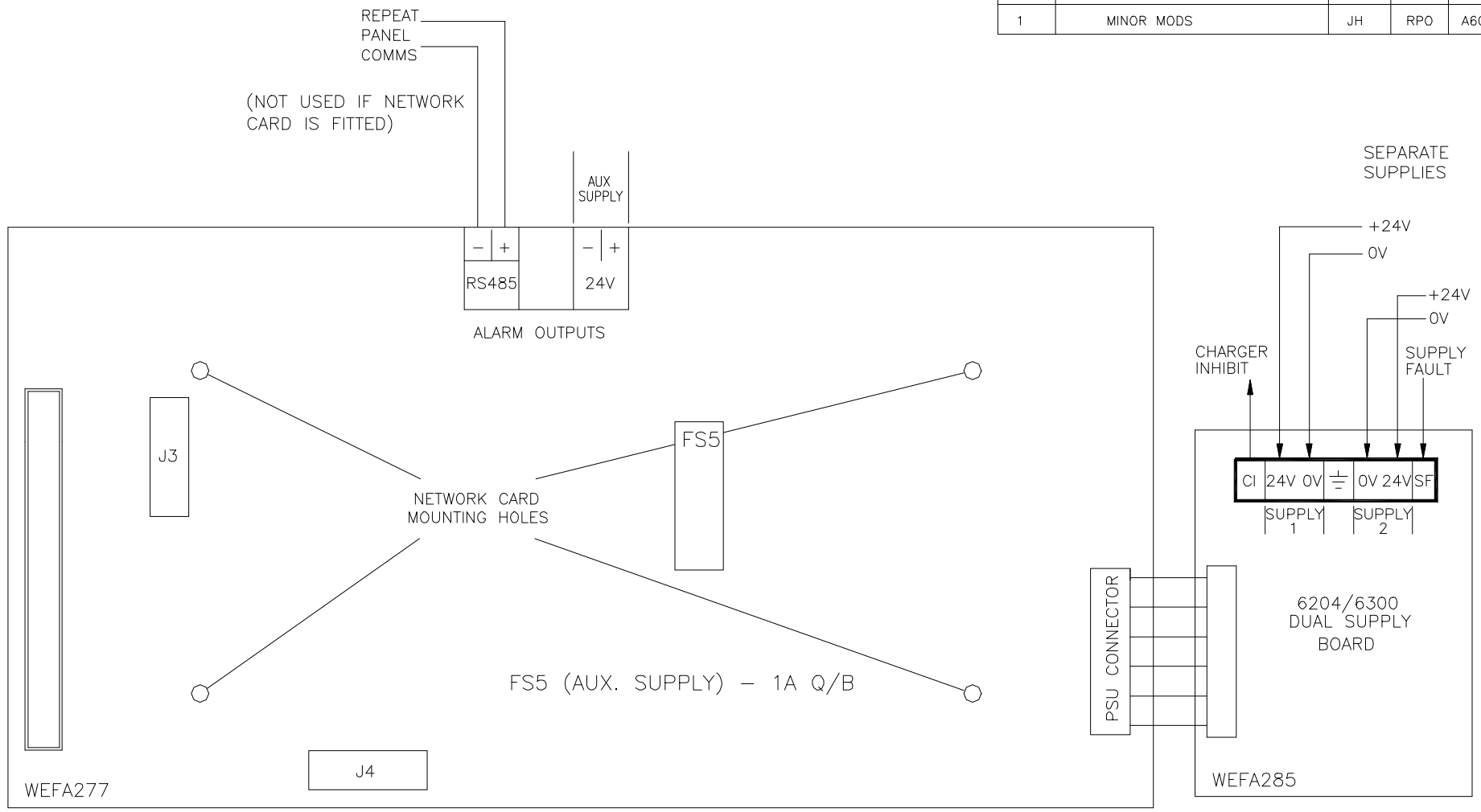
TITLE
6204/6300
TERMINAL BOARD CONNECTIONS

DRAWING No. PID201

JOB No.

ISSUE 1

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	MINOR MODS	JH	RPO	A6025	12.7.01



NETWORK CARD UPGRADE

1) FIT THE 4 STANDOFFS TO THE FIXING HOLES.
2) MOUNT THE NETWORK CARD ONTO THE STANDOFFS.
3) FIT POWER LEAD (SUPPLIED) FROM J3 TO NETWORK CARD J1.
4) FIT 232 LEAD (SUPPLIED) FROM J4 TO NETWORK CARD J4.
5) USE THE RS485 TERMINALS ON THE NETWORK CARD AND NOT THOSE ON THE TERMINAL BOARD.

© Protec
Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
NTS	DRAWN	J HACKING	28.3.01
	CHECKED	R.P.OLDLAND	28.3.01
	APPROVED	P.DEW	28.3.01

TITLE

6204/6300 REPEAT TERMINAL BOARD CONNECTIONS

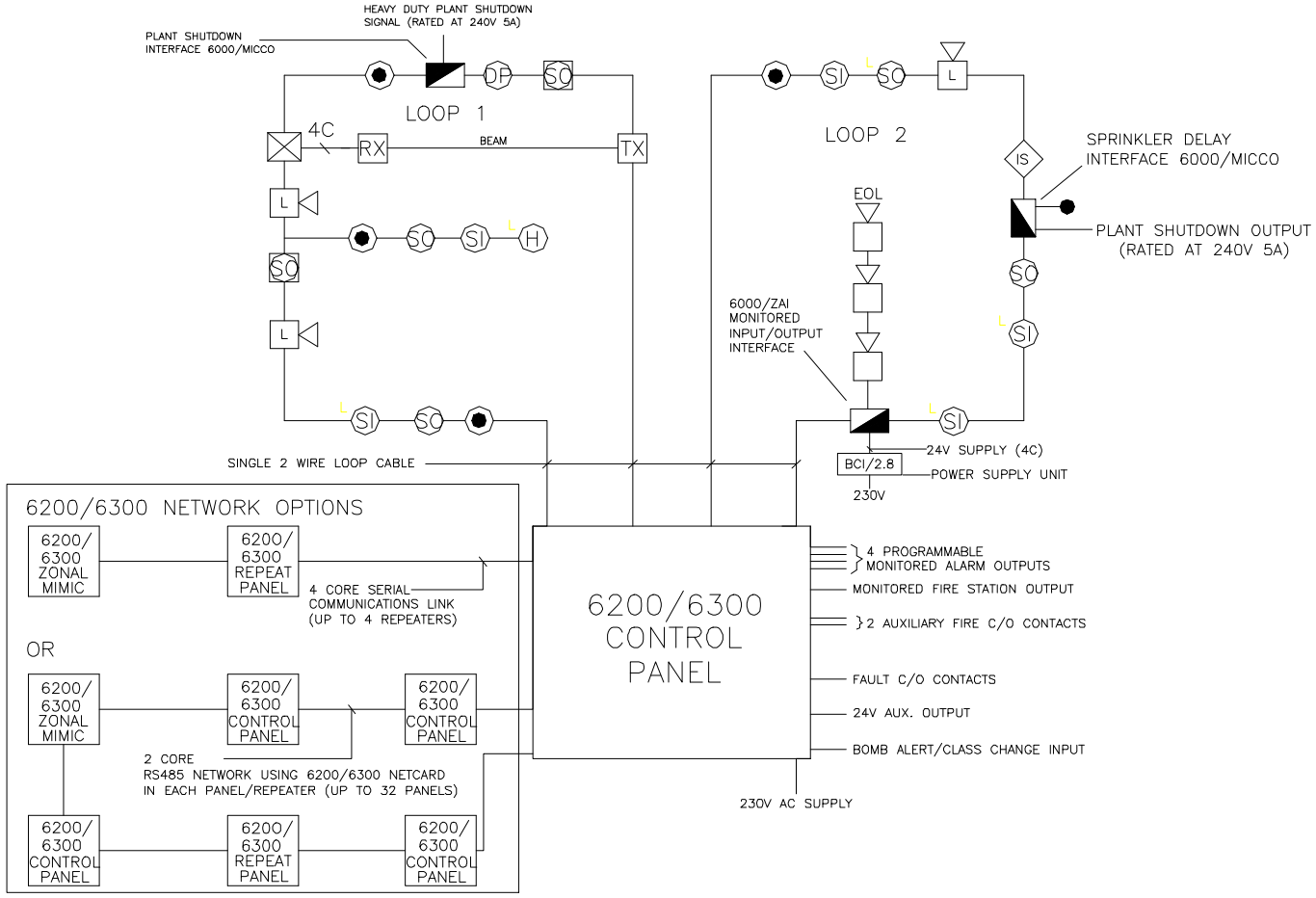
DRAWING No. PID202

JOB No.

ISSUE 0 1

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	MINOR MODS	JH	RPO	A6025	10.7.01



KEY

- IONISATION SMOKE SENSOR
- OPTICAL SMOKE SENSOR
- OPTICAL SMOKE SENSOR WITH DUAL ISOLATOR BASE
- IONISATION SMOKE SENSOR WITH DUAL ISOLATOR BASE
- TEMP SENSOR WITH DUAL ISOLATOR BASE
- DUCT PROBE UNIT C/W SMOKE SENSOR
- TEMP SENSOR WITH LOOP SOUNDER BASE
- IONISATION SMOKE SENSOR WITH LOOP SOUNDER BASE
- OPTICAL SMOKE SENSOR WITH LOOP SOUNDER BASE
- SPRINKLER FLOW SWITCH
- MANUAL CALL POINT
- INTERFACE
- BEAM DETECTOR CONTROL UNIT
- BEAM DETECTOR RECEIVER UNIT
- BEAM DETECTOR TRANSMITTER UNIT
- LOOP ISOLATOR
- LOOP SOUNDER
- STANDARD SOUNDER

© Protec

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
NTS	DRAWN	J. HACKING	28.3.01
	CHECKED	R.P.OLDLAND	30.3.01
	APPROVED	P.DEW	30.3.01

TITLE 6204/6300 EXAMPLE SYSTEM DIAGRAM (SHOWING 2 LOOPS)

DRAWING No. PID 203

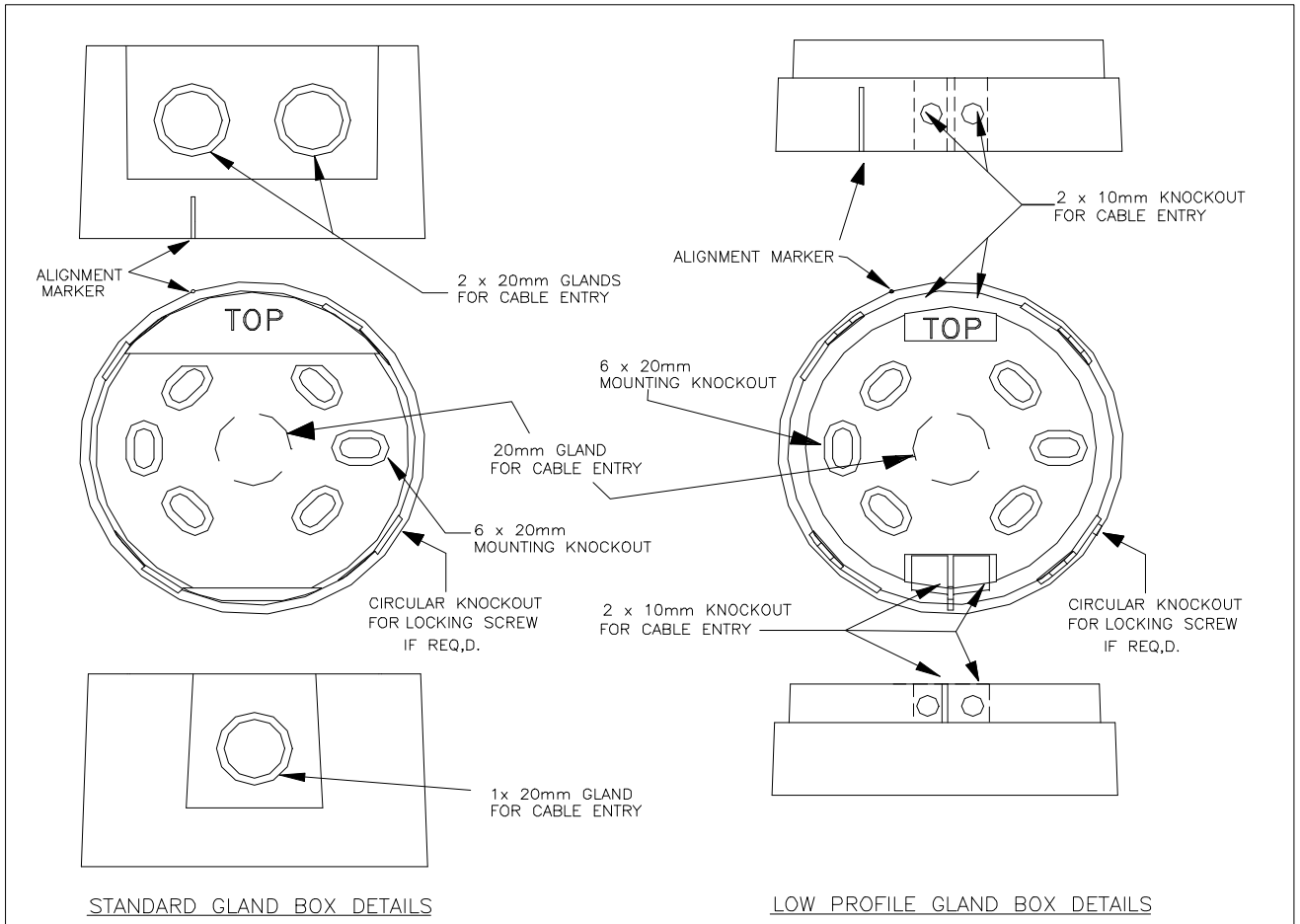
JOB No.

ISSUE 0 1

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE

INSTALLATION DETAILS


ALIGNMENT MARKER
2 x 20mm GLANDS FOR CABLE ENTRY
TOP
20mm GLAND FOR CABLE ENTRY
6 x 20mm MOUNTING KNOCKOUT
CIRCULAR KNOCKOUT FOR LOCKING SCREW IF REQ,D.
1x 20mm GLAND FOR CABLE ENTRY
ALIGNMENT MARKER
2 x 10mm KNOCKOUT FOR CABLE ENTRY
TOP
6 x 20mm MOUNTING KNOCKOUT
2 x 10mm KNOCKOUT FOR CABLE ENTRY
CIRCULAR KNOCKOUT FOR LOCKING SCREW IF REQ,D.

STANDARD GLAND BOX DETAILS

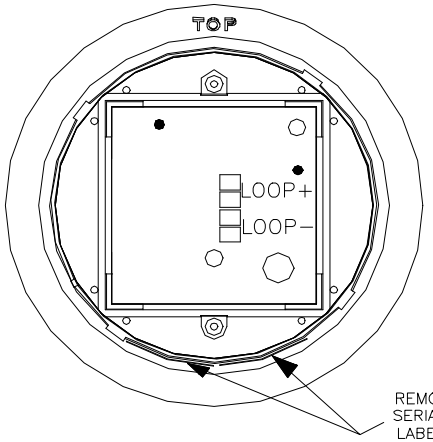
LOW PROFILE GLAND BOX DETAILS

NOTE— CARE SHOULD BE TAKEN NOT TO TRAP WIRES, ESPECIALLY ON LOW PROFILE BASES

SPECIFICATION

OPERATING VOLTAGE RANGE.....MX1 PROTOCOL.....16–30V.D.C.
CURRENT CONSUMPTION.....TYP. 4.5mA.
SOUND OUTPUT..... >100dB(A)@1M
MATERIAL.....RED/WHITE ABS
OPERATING TEMPERATURE.....–20°C TO 60°C
ENVIRONMENT.....WEATHERPROOF
NOTE– For weather proofing all cable entries and screw fixing points must be sealed at installation.

LOOP WIRING



PCB CONNECTION DETAILS
REAR VIEW (GLAND BOX REMOVED)

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
NTS	DRAWN	I.BULCOCK	18–3–02
	CHECKED	R.OLDLAND	18–3–02
	APPROVED	S.BROWN.	18–3–02

TITLE
6000 SYSTEM SOUNDER WIRING DETAILS

DRAWING No. PID207

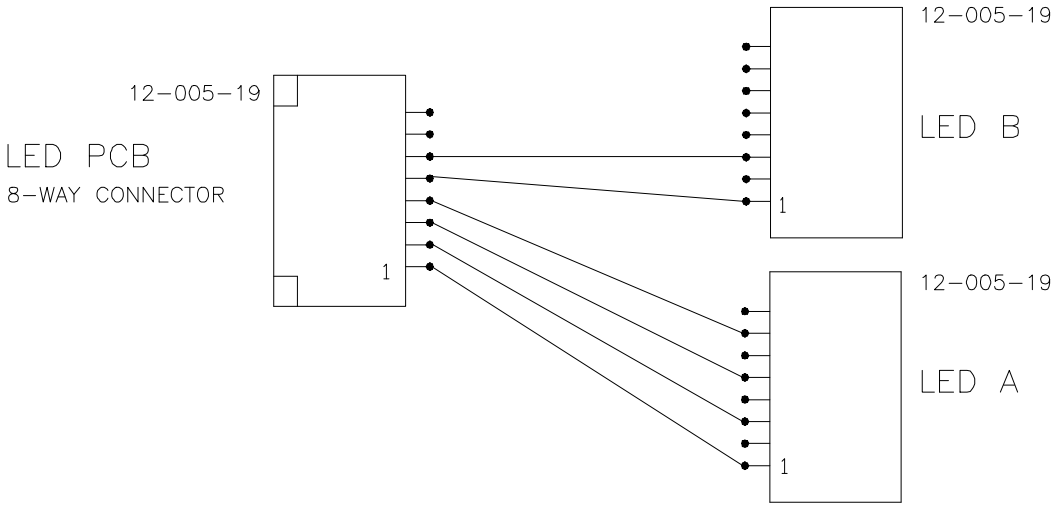
JOB No.

ISSUE 0

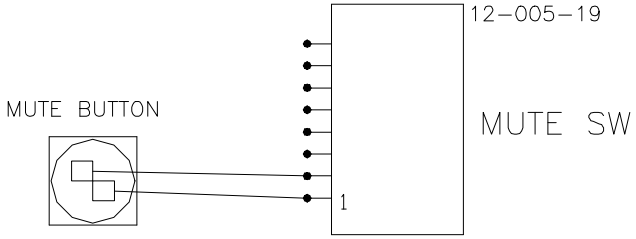
A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE

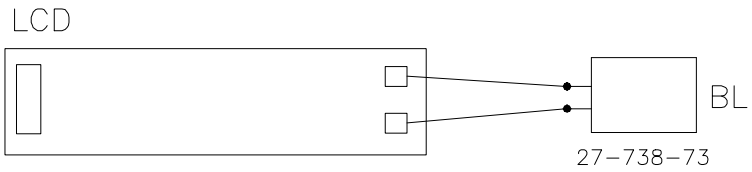
LED CONTROL CONNECTOR



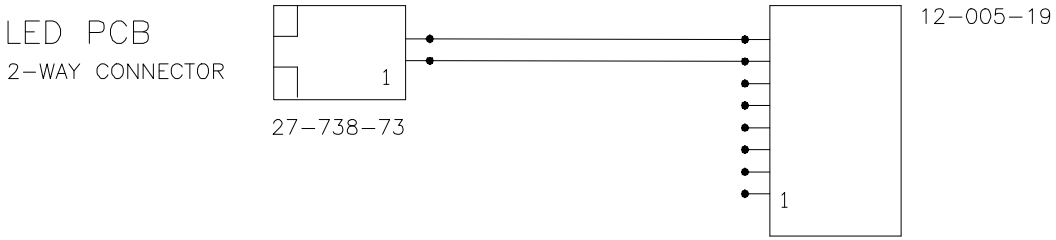
MUTE SWITCH CONNECTOR



LCD BACK LIGHT CONNECTOR



LED POWER CONNECTOR



© Protec

Protec Fire Detection plc

Protec House, Churchill Way, Lomeshaye Ind. Est.,
Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

DRAWING STATUS			DATE
ORIGINAL			6.6.02
SCALE	DESIGNED		
N.T.S.	DRAWN	L.McLAUCHLAN	6.6.02
	CHECKED	RP.OLDLAND	7.6.02
	APPROVED	K.NEWBY	7.6.02

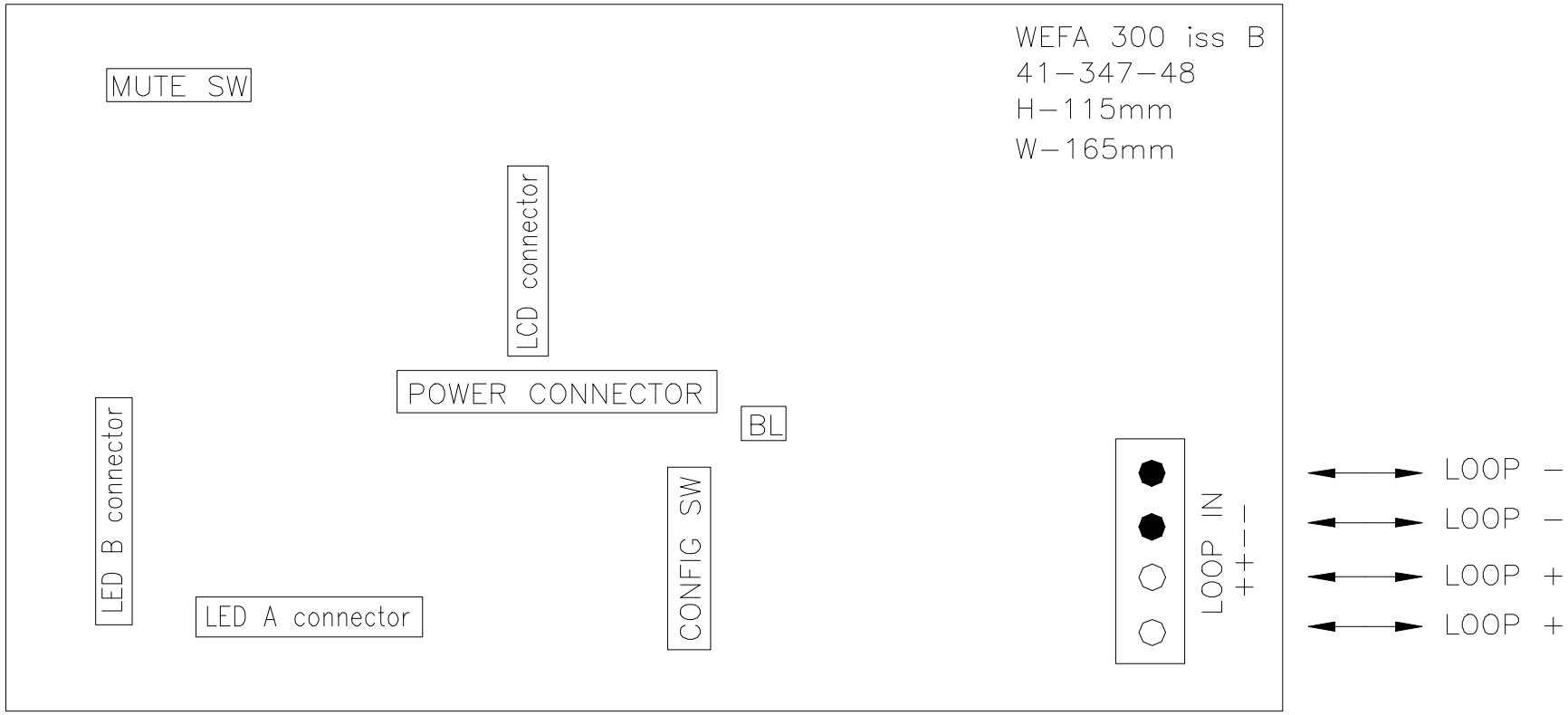
TITLE 6300 LOOP LCD CONNECTOR DATA SHEET

CLIENT VERSION 1

DRAWING No.	PID 212	JOB No.
ISSUE 0		PID 212

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE



DRAWING STATUS			DATE
INFORMATION			19.11.02
SCALE	DESIGNED		
N.T.S.	DRAWN	L.McLAUCHLAN	6.6.02
	CHECKED	RP.OLDLAND	7.6.02
	APPROVED	K.NEWBY	7.6.02

Protec Fire Detection plc

Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

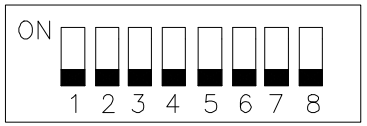
TITLE 6300 LOOP LCD CONNECTION DATA SHT

CLIENT VERSION 1

DRAWING No.		JOB No.
ISSUE 0	PID213	pid213

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE

0 — 

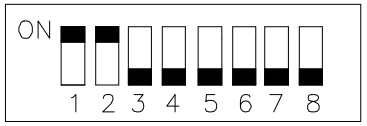
— Rx ALL

1 —

— Rx FIRES ONLY

2 —

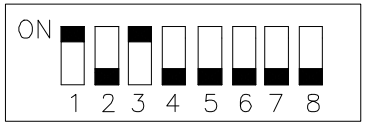
— Rx FAULTS ONLY

3 — 

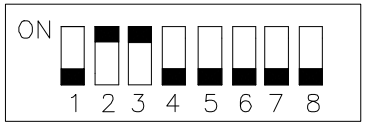
— Rx DISABLEMENTS ONLY

4 —

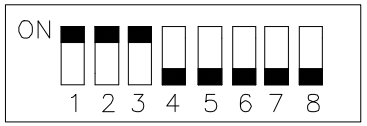
— Rx FIRES & FAULTS ONLY

5 — 

— Rx FIRES & DISABLEMENTS ONLY

6 — 

— Rx GENERAL ALARM ONLY

7 — 

— Rx CELL CALL ONLY

— BUZZER ACTIVE

— BUZZER DISABLED

A4

Protec Fire Detection plc

Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

DRAWING STATUS			DATE
INFORMATION			19.11.02
SCALE	DESIGNED		
N.T.S.	DRAWN	L.McLAUCHLAN	6.6.02
	CHECKED	RP.OLDLAND	7.6.02
	APPROVED	K.NEWBY	7.6.02

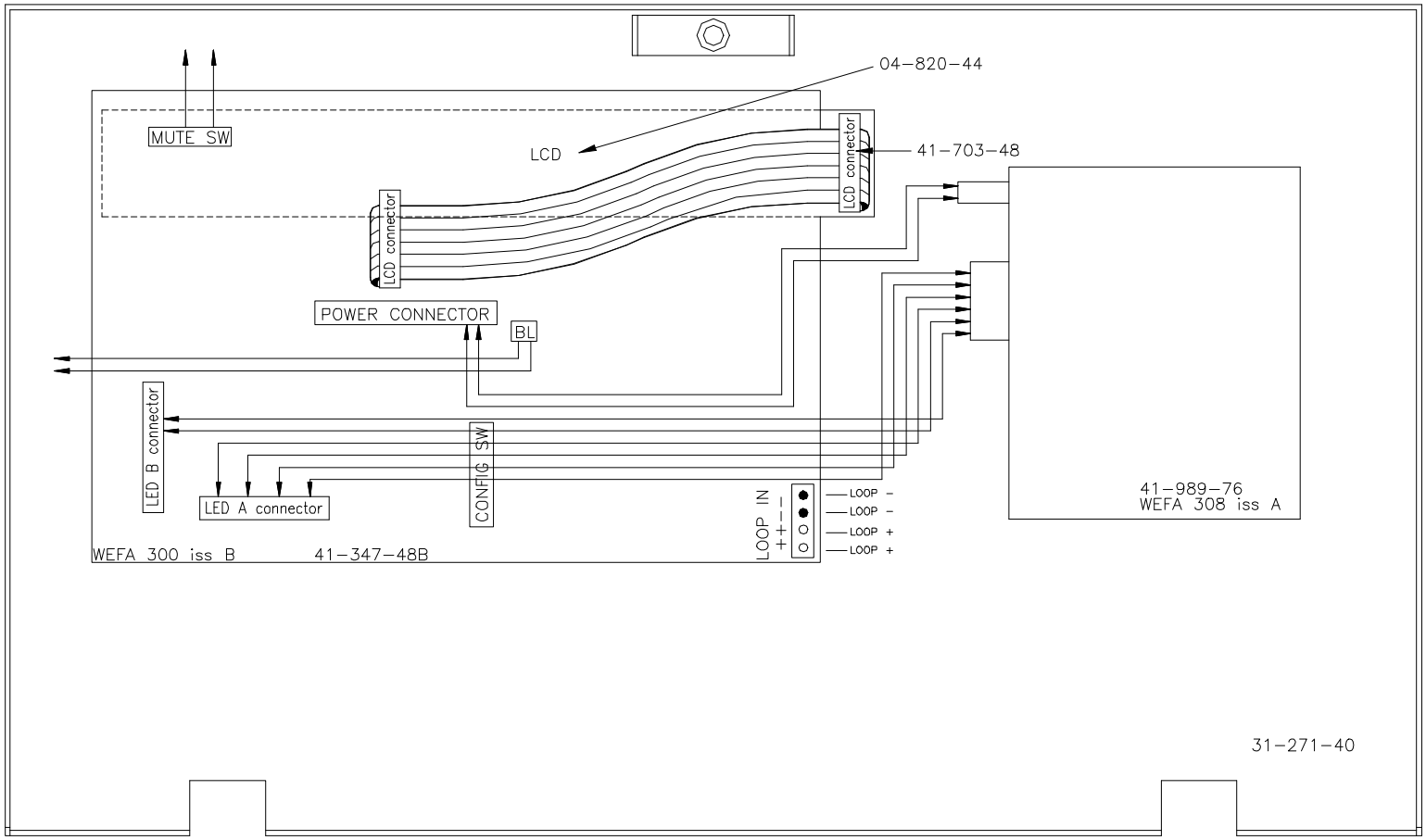
TITLE 6300 LOOP LCD CONFIGURATION DATA SHEET

CLIENT VERSION 1

DRAWING No.	JOB No.
PID214	Pid214
ISSUE 0	

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	TITLE BLOCK UPDATED	LMc	K.N	A7289	20.11.02

6300 FIRE ALARM REPEAT DISPLAY DOOR



N62-459-99
6000 LCD SURFACE

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

DRAWING STATUS	DATE
INFORMATION	22.11.02

SCALE			
N.T.S.	DESIGNED		
	DRAWN	CGJ	19.6.02
	CHECKED	P.Garnett	24-6-02
	APPROVED	N.HARLING	24-6-02

TITLE 6300 LOOP RPT CONNECTION DETAIL

CLIENT

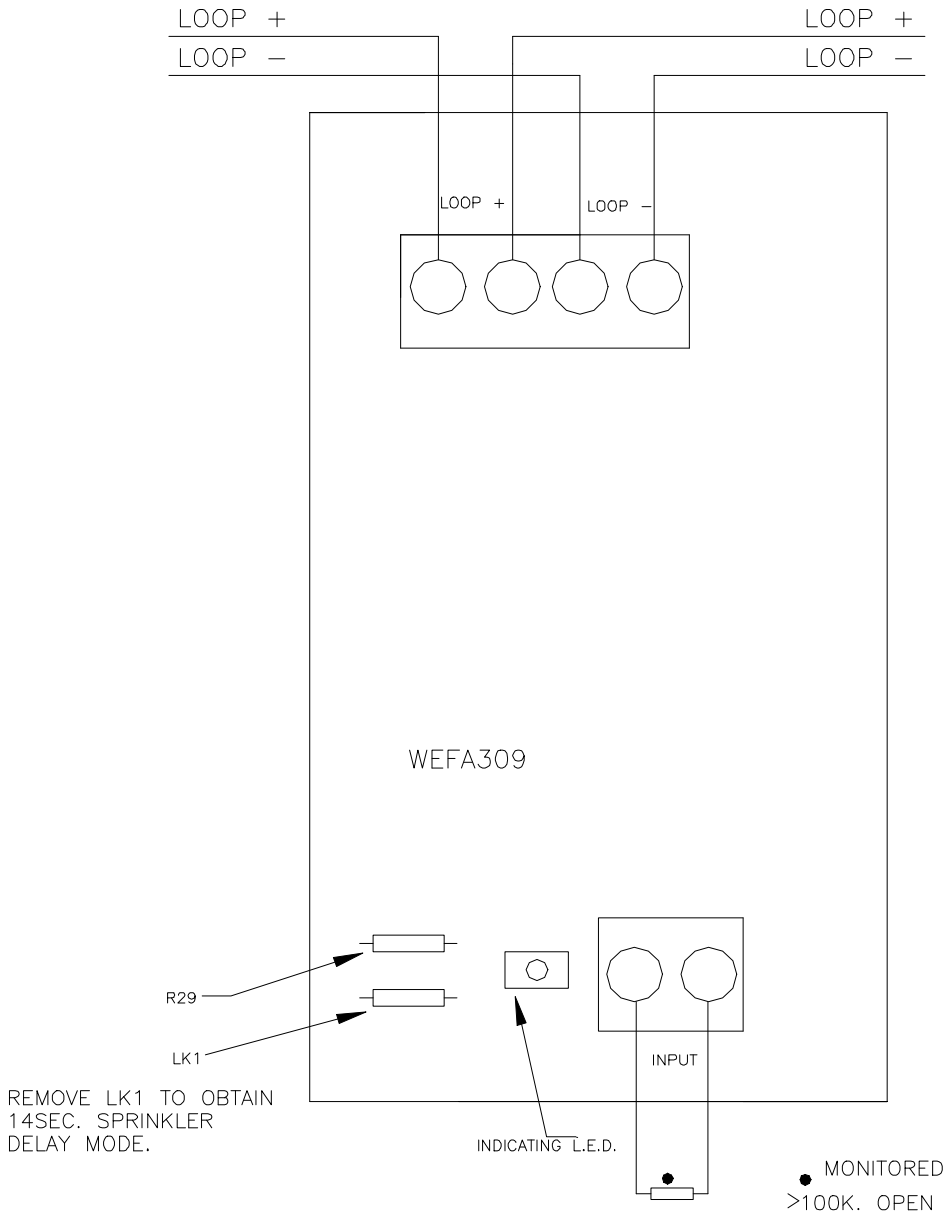
DRAWING No. PID218

ISSUE 1

JOB No. Pid218

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE
1	INSTALLATION PROCEDURE ADDED	LJH	NH	A7088	18.9.02



MONITORED I/P VALUES
>100K. OPEN CICUIT FAULT
47K. NORMAL
22K. PRE ALARM
1K. FULL ALARM
<190Ω SHORT CIRCUIT FAULT

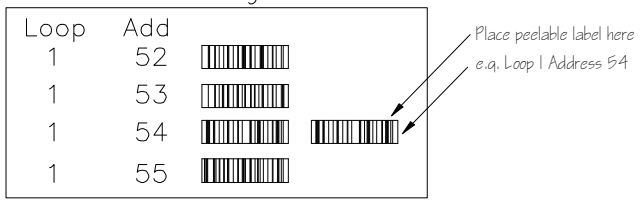
Installation procedure for Protec 6000/MIP Variant products.

This document pertains to Protec 6000/MIP Variant products only.

Commissioning instructions.

Important. The Interface has a unique serial no. which will be used as part of the commissioning of the fire alarm system. It is necessary to remove one of the "peelable" bar code labels that has the product serial no. in bar code format, and place it on the commissioning booklet supplied with each 6400 or 6200 control panel. The bar code sticker should be placed on the commissioning booklet in the loop and address position in which the sounder has been placed.
It is important that the serial no.s are not mixed otherwise the addressing of the interface will be wrong at commissioning.

Example: A CCO placed in Loop 1 Address 54



A4

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

DRAWING STATUS			DATE
ORIGINAL			18.9.02
SCALE	DESIGNED		
NTS	DRAWN	I.BULCOCK	5.7.02
	CHECKED	D.REEVES	5.7.02
	APPROVED	N.HARLING	5.7.02

TITLE S6000 MONITORED I/P INTERFACE. WEFA309

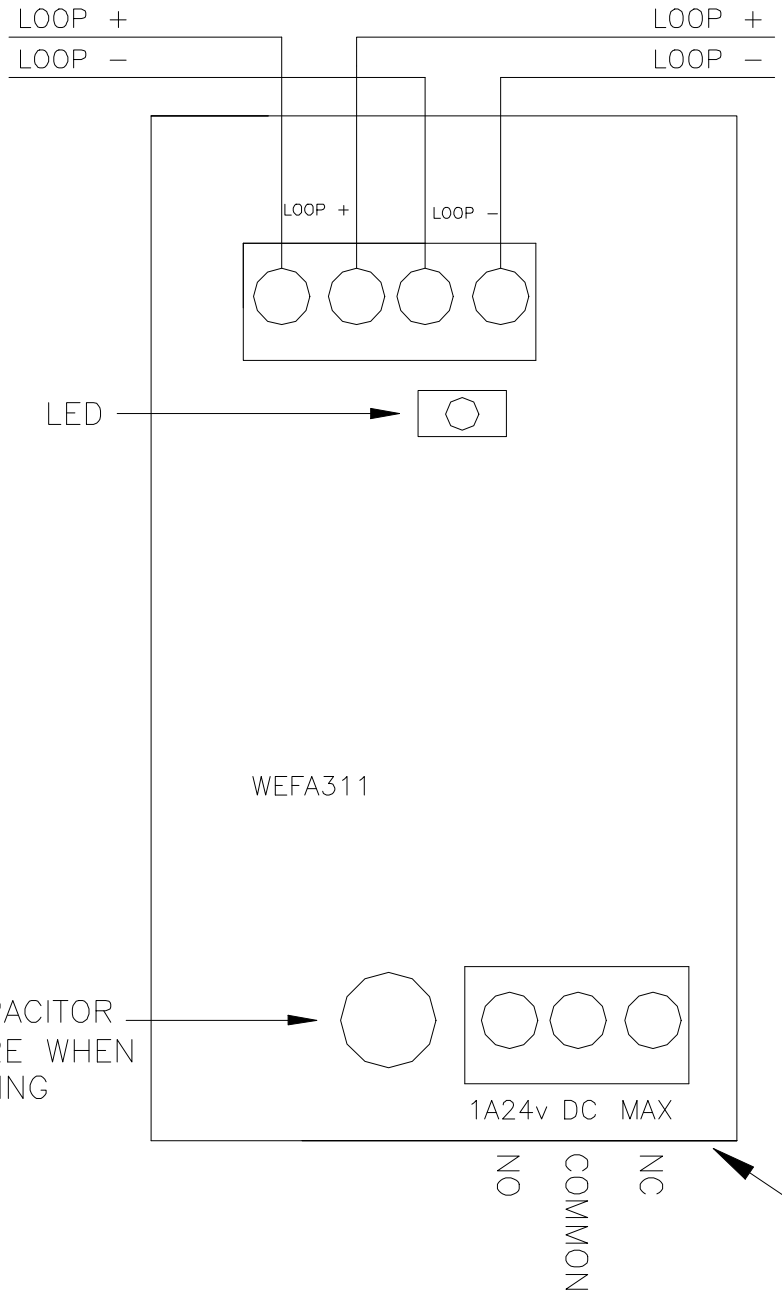
CLIENT

DRAWING No. PID219

ISSUE 1

JOB No.

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE



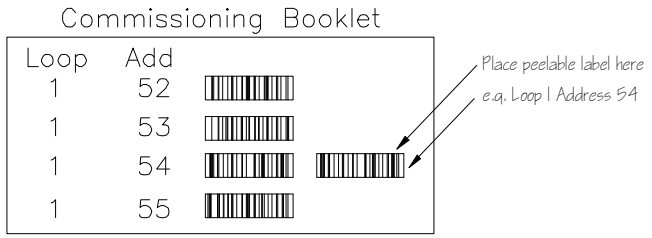
Installation procedure for Protec 6000/CCO Variant products.

This document pertains to Protec 6000/CCO Variant products only.

Commissioning instructions.

Important. The Interface has a unique serial no. which will be used as part of the commissioning of the fire alarm system. It is necessary to remove one of the "peelable" bar code labels that has the product serial no. in bar code format, and place it on the commissioning booklet supplied with each 6400 or 6200 control panel. The bar code sticker should be placed on the commissioning booklet in the loop and address position in which the sounder has been placed.
It is important that the serial no.s are not mixed otherwise the addressing of the interface will be wrong at commissioning.

Example: A CCO placed in Loop 1 Address 54

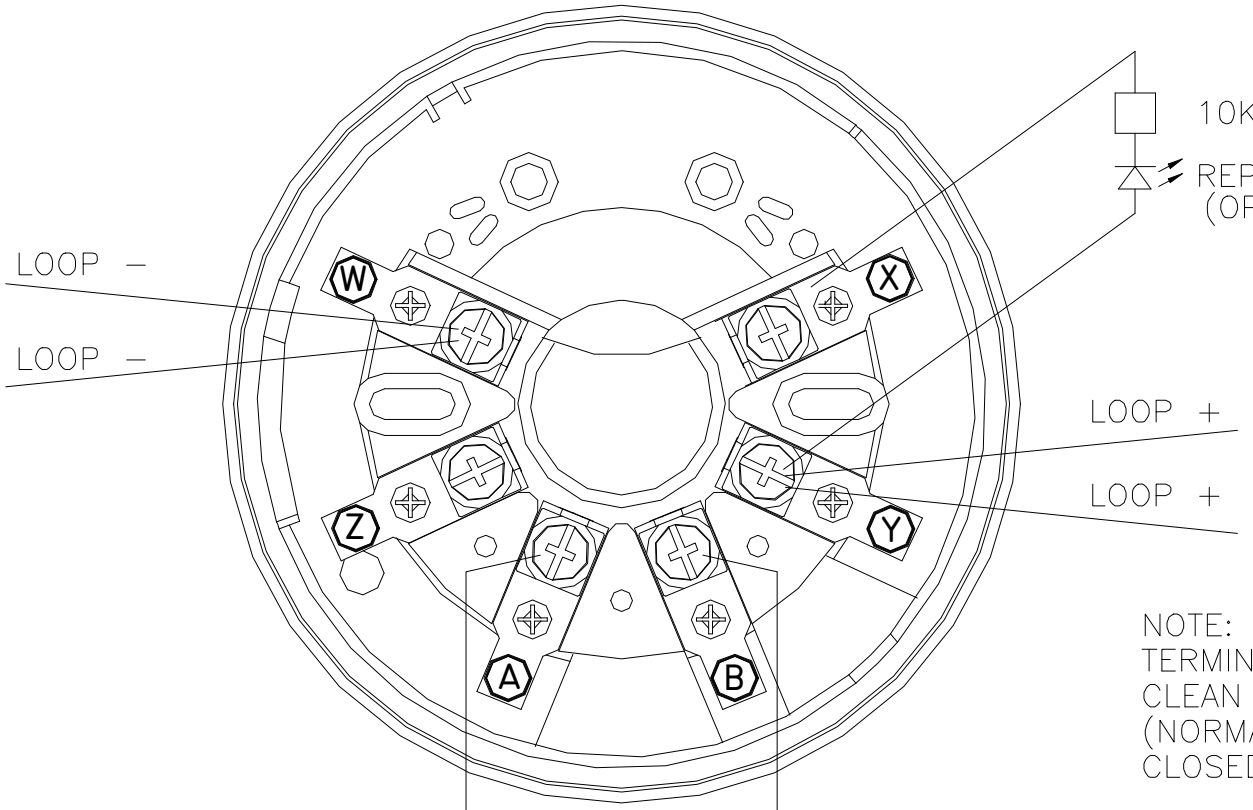


NOTE:
OUTPUT RELAY IS 1A 24V DC MAX

	SCALE	DESIGNED		
Protec Fire Detection plc Protec House, Churchill Way, Lomeshaye Ind. Est., Nelson, Lancashire, U.K. BB9 6RT. Tel. (01282) 717171 Fax: (01282) 717273	NTS	DRAWN	L.J.HOLT	16.9.02
		CHECKED	C.WHITAKER	18.9.02
		APPROVED	N.HARLING	18.9.02
TITLE: S6000 CLEAN CONTACT OUTPUT WEFA311				
CLIENT				
DRAWING No. PID221 ISSUE 0			JOB No. PID	

A4

ISSUE	ALTERATIONS	DRAWN	APP'D	MOD No.	DATE



NOTE:
TERMINALS A & B ARE THE CLEAN CONTACT TERMINALS (NORMALLY OPEN OR NORMALLY CLOSED)

CLEAN CONTACTS
1A 24vDC MAX

DO NOT EXCEED
CONTACT RATINGS

© Protec

Protec Fire Detection plc
Protec House, Churchill Way, Lomeshaye Ind. Est.,
Nelson, Lancashire, U.K. BB9 6RT.
Tel. (01282) 717171 Fax: (01282) 717273

SCALE	DESIGNED		
1:1	DRAWN	L.J.HOLT	18.9.02
	CHECKED	C.WHITAKER	18.9.02
	APPROVED	N.HARLING	18.9.02

TITLE
6000/RBNO 6000/RBNC

DRAWING No. PID222

JOB No.

ISSUE 0

A4